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THE MOTION PICTURE CAMERA MAGAZINE

VOL. 22 DECEMBER, 1941 NO. 12

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The Front Cover

Director of Photography James C. Van Trees, A.S.C. (standing below steplodder) films a wintry scene for Warner's "Steel Against the Sky." The icicles are made of parffin and melted sugar; notice rain nozzles in front of camera, "rain-shield" over microphone, and man in foreground with smoke-pot. Photo by Bert Longworth.

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NEW YORK REPRESENTATIVE
S. R. Cowan, 132 West 43rd Street
Chickering 4-3278 New York

AUSTRALIAN REPRESENTATIVE
McGill's, 179 Elizabeth Street, Melbourne.
Australian and New Zealand Agents

Published monthly by A.S.C. Agency, Inc.
Editorial and business offices,
1782 North Orange Drive
Hollywood (Los Angeles), California
Telephone: GRanite 3135

Established 1920. Advertising rates on application. Subscriptions: United States and Pan-American Union, $2.50 per year; Canada, $2.75 per year; Foreign, $3.00. Single copies, 25c, back numbers, 35c; foreign, single copies 35c, back numbers 40c.

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Entered as second-class matter Nov. 13, 1937, at the postoffice at Los Angeles, California, under the act of March 3, 1879.

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Cramped sets and panelled walls call for the arc's penetrating power

USING ARCS FOR LIGHTING MONOCHROME

By GREGG TOLAND, A.S.C.

THE fact that the modern arc lamp is ideally suited to the requirements of Technicolor cinematography has, I think, tended to make most of us overlook the fact that it can also be extremely useful in black-and-white camerawork. Of course we all know that nothing can quite take the place of the arc for simulating strong sunlight effects; but there are other, less obvious uses of "hard light" in monochrome camerawork which can be of even greater value. Certain modern techniques, such as the use of extremely large, stage-built exterior sets, and especially the increased-depth camerawork which has been increasingly used this last year, virtually demand the use of arc equipment to supplement the more familiar Mazda.

This is based on two outstanding characteristics of the arc. In comparison to either the space occupied by the lamp, or the current consumed, the arc produces without doubt the most intense illumination of any practical studio light-source available today. Due to this, and probably also to its strongly blue-white color, arc illumination has very markedly greater carrying power and penetrating ability than rays from any other commonly-available light-source. Both of these characteristics give the arc a very definite place in modern lighting technique.

The so-called "pan-focus" technique we employed in Orson Welles' "Citizen Kane," for example, very definitely depended upon the use of arc equipment. This technique obtained increased depth of field by the very simple expedient of stopping down the camera's lens until the desired depth was obtained. In practice, this required the use of apertures of *f*·8 and smaller—sometimes even *f*·11 and *f*:16—throughout much of the production. And even though full use was made of such modern advantages as coated lenses and Super-XX film, this necessitated a rather high level of illumination. A majority of the sets for this production were roofed over, and all of the lighting was done from the floor, rather than from overhead. Accordingly, light of very considerable intensity and carrying-power had to be used. The answer, of course, was to use arcs very extensively. It is safe to say that "Citizen Kane" could not have been made without modern arc lighting.

There is another aspect to this lighting problem which has received very little, if any, comment. That is the fact that the use of arcs permitted us to light this way and yet to avoid the unevenness of exposure which might normally be expected under such circumstances.

Lighting a deep, roofed-in set almost exclusively from floor units, one would naturally expect the illumination to fall off rather sharply. People or objects in the foreground, and hence close to the lamps, would receive a high level of illumination, while people or objects farther back would be comparatively underexposed, as the light from these lamps fell off.

Using arc broads (the modern "Duarc" so generally used in Technicolor) this problem was minimized. With an arc broad, you can place the lamp considerably farther back than you would place an incandescent broad or spotlight, and yet obtain the desired high level of illumination. Where, for instance, you might place the conventional unit ten or fifteen feet from the point you wished to light, you can put the arc twenty or thirty feet away. And here's the important point: at that distance, the field of uniform illumination is very considerably broader than with a lamp placed closer in. With the lamp nearer the action, its depth of illuminative field might be a matter of two or three feet. With an arc placed farther back, your subject can move freely over an area of ten feet or more in depth without undesirable changes in exposure-value. Arc illumination, in a word, gives you depth of field in lighting to match the

Left, production scene from "Ball of Fire"; right, how it was lit, note use of 65 Amp. arc spotlight as key light in foreground and (left) its effect. Photos by Hal McAlpin.

optical depth modern technique affords.

This is particularly valuable when, as I was in my most recent production, "Ball of Fire," you are working in comparatively small, deep sets under somewhat crowded conditions on both sides of the camere. On the screen, "Ball of Fire" may not be nearly as spectacular as any of a number of recent films I have photographed but due to these and other conditions it was one of the most difficult assignments I have had in a long time. As I have said, many of the sets were deep and sometimes narrow, some were quite small, and most of them were surfaced with walls of dark, light-absorbing wood panelling. The action kept the sets quite crowded: there were six or eight players in nearly every scene—sometimes more—and with the exception of Barbara Stanwyck, most of the players wore very conservative, black clothes. In addition, as a number of the principals were rather elderly character-actors and rather nervous, we had an opportunity for a full rehearsal. The only solution was to stick to a simple, reasonably foolproof lighting—and hope for the best.

The answer was found in the extensive use of arc illumination. I utilized "Duarc" broadsides, both on the floor and overhead, to provide a generous foundation of "filler" light, and then built up my modelling with arc and incandescent spots in more or less the usual manner. The result was excellent. The overall illumination from the arc broads provided the necessary basic illumination level throughout the set, giving the actors ample room to move about freely. As might be expected, the color and intensity of this light brought out the textural value of the panelled walls, and for that matter, of the black costumes, as no other light could do, and added a desireble sheen and richness to the walls.

Interestingly enough, though it is so revealing on settings and costumes, arc lighting is usually flattering to the players. It gives a very pleasing rendition of facial tones and skin textures. As long ago as "Nana" and the other pictures we made with Anna Sten, we discovered this. The critics were very kind in their remarks about the way Miss Sten appeared on the screen, and it may be interesting to recall that in all of the pictures she made for Goldwyn, she was never lit with anything but arc lighting. More recently, I used the same type of illumination on Barbara Stanwyck, with excellent results.

Where high-intensity arc spotlights are used, I generally have found it best to follow Technicolor practice, and filter them through a Y-1 or similar straw-colored or amber gelatin. Thus filtered, their light blends excellently with incandescent light, while yet retaining the charecteristics of penetretion and carry-power which make the arc inherently desirable. By varying the density of the gelatins used, a surprising renge of effects is possible.

It may be interesting to mention, also, that at the Goldwyn Studio we are able to use our arcs quite satisfactorily on a dimmer, so that very precise adjustment of intensity is possible. Instead of using a conventional dimmer, however, we wire the arcs on a separate circuit, fed from a separate generator. The field current of this generator is, in turn, through a dimming rheostat, thereby controlling the voltage output of the generator. By this means it is possible to operate the arcs not only at full rated voltage, but at lower potentials down to 80 volts or lower, and if necessary to fade them out completely. Fortunately, the arc, when dimmed in this way, retains its normal coloring quite well. It does not begin to get objectionably red until dimmed to the point where the are is just about to go out. Then the light suddenly reddens and dims out almost simultaneously.

We have made it standard practice whenever a set is rigged in any way with arcs, to wire them in this manner. This is especially useful on large, stage-built exteriors or other sets using large backings. The backings are always lit with arcs. A test is made at various voltages, and the correct voltage to maintain the desired balance between foreground and backing is found. Thereafter, it is a simple matter to adjust the arcs for that voltage ,and the correct balance is assured. This is naturelly particularly useful when making retakes or added scenes some time after the original scenes have been filmed, and the lighting equipment probably removed from the set.

When the subject of using arc lighting in black-and-white is mentioned, the objection is commonly made that while arcs are undeniably effective, they are also more expensive to operete. To my mind, this argument holds good only on very superficial analysis. Of course, as the arc burns, it consumes carbon trims, which must be frequently replaced. But incandescent globes of comparable power cost fifty or sixty dollars apiece, and must also be replaced at fairly frequent intervals· and you can buy a lot of carbons for the price of even one of these globes.

A few years ago the objection that arcs required constant attention was valid. Today, it is very much less so. Modern arc lamps—whether spotlights or broadsides—are very nearly automatic in their operation. Once correctly trimmed, they stay that way until the trim is consumed. Retrimming the spotlights is of course quite an easy matter. The broadsides take a little more time and care in the trimming, but with reasonable care—conserving the arcs during long waits between takes, and so on—a modern arc broad will give a burning period of from 45 minutes to an hour or more on a single trim. This is quite enough to take care of an average half-day's work, so that the arcs can be trimmed at the start of the day's work, and again during the lunch-hour, and there need be no delays in shooting on that account.

Arcs undeniably do require a somewhat greater electrical crew on the set, since one electrician can efficiently tend only a limited number of arcs. But the cost of this technical labor is by no

(Continued on Page 588)

Why Overlook the Set-Miniature?

By VINCENT KORDA

Supervising Art Director
Alexander Korda Productions

IF there is one almost universal fault to which we cine-craftsmen must almost all plead guilty, it is a too-great willingness not only to accept, but to attempt almost to standardize upon successful innovations in film technique. Something new or unfamiliar is successfully used in the direction, photography or set-design of a production, and straightaway its use is adapted to other productions, often to the exclusion of older, more conventional ideas which might actually be better suited to the needs of the particular scene or story involved.

Cinematographers, for example, are currently only too familiar with the trend started, or at least heightened by Gregg Toland's "pan-focus" increased-depth technique as it was used in "Citizen Kane." While Cinematographers themselves may hold somewhat diverse opinions as to whether or not this technique represents something either new or desirable in photography, there is no doubt that many directors and executives found it novel and impressive. In consequence it has been emulated in many subsequent productions; sometimes fittingly, sometimes in instances where it would seem more routine methods would have been more suitable.

In my own field of Art Direction, the same thing has occurred with the use of roofed-in sets. While the idea of putting ceilings on interior sets is certainly not new, it was used so effectively in the Welles picture that it struck the industry with much the impact of a new idea. Accordingly, we find many Art Directors, either voluntarily or by executive request, putting ceilings on many of their interior sets. Sometimes this is desirable; it would, for instance, add much to the atmospheric value of a set representing the interior of, say, a low-ceilinged English or Scotch cottage. But on other types of interiors the same trick of design could be of negligible value, or even harmful dramatically.

Sometimes this over-enthusiasm for accepting a new method or process can delude us into believing that the older method it displaced is necessarily a back number, and as such no longer practical for modern use. Such may occasionally be the case; but I think that in many more instances sober analysis would prove that the requirements of modern production are so infinitely varying that there is usually a place, if not an actual need, for both methods to enable Art Directors and Cinematographers to meet those varying conditions.

An excellent example of this is in the almost universal use of the so-called "matte shot," in which a desired area of the set is left unfinished, matted off in the camera, and the scene is later completed by a second exposure through complementary mattes when the ceiling skyline, or other feature is added by photographing a properly-scaled painting.

There is no doubt that this is an extremely valuable part of modern production technique. It is also an immeasureable improvement over the original "glass shot" technique it supplanted. But it seems to me that in recognizing these advantages, many of us—Art Directors and Cinematographers alike — have tended to overlook the fact that another somewhat similar earlier method of adding to sets has, under certain circumstances, equal or even greater advantages.

I refer to the use of "front miniatures" and miniature set pieces in general, in which the function of the matte-painting is served by a miniature suspended in proper relation to set and lens.

These set-miniatures, as a rule, may cost somewhat more than a corresponding matte-painting. But they give more convincing effects than any but the finest matte-paintings, together with production flexibility that no matte-painting can possibly give.

With all due respect to the skill of the industry's matte-painters, it must be admitted that their paintings are inherently flat, two-dimensional affairs which can only suggest the third dimension of actual depth and roundness. And while it is true that the screen upon which the final picture is projected is also a flat, two-dimensional affair, the camera's eye almost invariably makes a sharp distinction between its depiction of the actual, three-dimensional part of the scene and of the two-dimensional portion added by the matte-painting. No matter how perfectly the two portions of the scene may be matched together in perspective, gradation and exposure, the matte-shot always has a strong tendency to appear synthetic.

The set-miniature, on the other hand, is, like the set itself, a three-dimensional creation. It has inherently the depth and roundness of the normal, full-scale portions of the scene. In addition, the Director of Photography can use on it the same tricks of lighting which he employs to give depth and natural roundness to his set and players.

In this, and in aligning the miniature and full-scale components of his scene, he has the great advantage that he, himself, coordinates the lighting and treatment of both elements of his shot according to what he personally sees on the ground glass, rather than depending on the judgment and concepts of another person. He lights and composes both elements at once, with everything under his immediate control.

From the production viewpoint, the miniature has the very great advantage of being more flexible. A matte-painting, as a rule, can be used for but a single camera-angle, and usually with but one lens of given focal length if the two elements—actual and painted—are to coordinate properly. Moreover, movement of the camera in making the actual part of the shot—panning, tilting or dollying—is impossible.

The set-miniature affords much greater freedom. A single miniature set-piece, properly designed and photographed, will permit the making of quite a number of different camera-angles and, if necessary, the use of a variety of lenses. Since the miniature and the camera may easily be moved with relation to the set and to each other, further variation of camera-angles is often possible. Moreover, while the freedom permitted is admittedly not as complete as if no miniature were used, the front-miniature permits the camera to pan, tilt and dolly as may be necessary to best present the scene's action.

A further, very important advantage is that the miniature does not tie the Director and Cinematographer to a single, fixed approach to a scene or sequence. Preliminary conferences on the script may have indicated that certain angles and treatment may be desired for the establishing shots of a sequence, and the set and miniature designed to suit them. But it often happens that when the production unit is actually on the set spontaneous, last-minute changes in directorial or photographic treatment of the action may make a different approach seem preferable. In that event, the miniature can usually be adapted to that different and unplanned approach without delay.

In this connection, too, it must be pointed out as a very practical advantage that the set-miniature—unlike the matte-shot—does not tie up the scenes involved for several days or more, while tests are made and the first and second-exposed "takes" are laboriously matched to each other. When the miniature is used, the completed scene is screened the next day, along with the other rushes of the day's work.

The chief objection to the use of set-miniatures, in comparison to matte-shots, seems to be the increased cost. For a low-budget picture, this is a very valid objection. But for the average major production, I do not feel that the matter of cost is so serious a drawback as it might seem.

To take a concrete example, in the "dream ball" sequence of Alexander Korda's recent production, "Lydia," we made use of a front-miniature to put in

the ceiling, some chandeliers and some overhead drapes in the long-shots. As I recall it, this miniature cost around $800, a figure considerably more than a good matte-shot would have cost. But—overlooking for the moment the fact that it would have been difficult in a matte-painting to reproduce the textural effect of the drapes to match those on the actual set itself, or to paint in the natural, fine gradations of lighting which Director of Photography and Associate Producer Lee Garmes, A.S.C., used to make the effect so completely convincing—the matte-painting could only have been used for a single camera-angle. The miniature, on the other hand, was used for some half-dozen or more angles of the sequence. When the added cost of the miniature is thus spread over several shots, the disparity in cost is greatly lessened, if not actually offset, and the more convincing effects possible loom more significantly.

Like most of the other worthwhile practices of cine-technique, the set-miniature, I might add, is fully as adaptable to Technicolor as to black-and-white. The perspective and optical characteristics of the color-camera are such that the set-miniatures for a color production are, as a rule, rather larger than those one would use to obtain a comparable effect in monochrome; but their usefulness is the same. We employed quite a number of them in "The Thief of Bagdad," and more recently, in "Jungle Book." They enabled us to put on the screen sets which seemed spectacularly large, yet without involving the now-prohibitive costs of constructing enormous full-scale sets.

In this, it seems to me, the miniature set-piece can serve a further useful function. We often hear it said by critics and others not directly connected with the industry and its economic problems that the cinema has definitely lost in eye-appeal since the impressively huge sets of such silent-film spectacles as "Intolerance," "Ben Hur," and others passed from the scene. Yet we know that under modern conditions, such sets are economic impossibilities.

Modern set-miniatures. Left: chandelier and draperies in top foreground were a front miniature. Right top, scene from "Jungle Book", note elephants in middle ground, actors moving in foreground, and massiveness of ruins in background. Below how it was done; note full scale foreground set, reduced-scale miniature set piece suspended over set, and painted backing for extreme distance. Photos by Robert Coburn.

In many instances, the use of miniature set-pieces can go a long way to restore this spectacular appeal without involving proportionately high costs. With the actors moving in an actual set of thoroughly practical size and cost, the spectacularly huge completion of the scene can be effected by the use of an economical miniature-piece, and much more convincingly than would be possible with the use of a matte-painting, projected background, or the like.

It has been done in a number of recent instances. "The Thief of Bagdad" owed much of its spectacular visual appeal to this technique. So, too, do some sequences from "The Jungle Book."

One of the sets we built for this latter production serves as an excellent illustration of the possibilities this technique affords. The scene represented an ancient, lost city in the Indian jungle, with massive ruins half-concealed by the over-running jungle growths. It would be manifestly impossible to reproduce in full scale anything which would give the desired impression of massive size. The use of either a backing or a matte-shot would fail to give the convincing aura of reality we wanted.

A combination of a reasonable amount of full-scale construction with a rather large miniature, and a skillfully-painted backing, solved the problem. The set itself was sufficiently large to permit us to use several full-grown elephants, as required by the script, not only in the foreground but in the middle-distance of the scene. The miniature—necessarily quite large—represented the upper, jungle-clogged terraces of the temple, with its spired pagodas and weird, many-faced idols towering almost like sky-

(Continued on Page 588

Three-dimensional animator and his puppets. Left, top, Gaarga Pal and his leading man, 'Jim Dandy,' split a bottle of California champagne, center, note three dimensional lighting as 'Jim Dandy' serenades his lady bottom, over a score of different fignrines are required to make 'Jim' raise his eyes to his girl friend's balcony. Right "Sarong-Sarong," the puppeteer's Dotty Lamenr—very much in action middle, the giant's hand is little larger than a man's bottom, note reality of three dimensional puppeteon set

"Puppetoons"—George Pal's Three-Dimensional Animations

By ALVIN WYCKOFF, A.S.C.

A FEW months ago, in a Hollywood theatre, a jaded audience of film-wise preview-goers suddenly opened its collective eyes, gasped and enthusiastically burst into applause. The applause wasn't for the pretentious feature being previewed, but for a little short-subject which surprisingly succeeded in putting on the screen something genuinely new—and wholly ingratiating. A "puppetoon," it was called. An animated picture, yet not a cartoon, its actors and scenery, though as fanciful as any film-cartoonist's concept, had the same three-dimensional effect as any "live action." Puppets they were—puppets without strings or any other visible means of manipulation—walking, dancing, running and riding through three-dimensional Technicolored settings of unusual beauty. Though fanciful and imaginative, their three-dimensional character gave an illusion of reality no other animated films have ever possessed. Soon Hollywood, and then America's movie-going millions were asking, "What are these 'puppetoons? How are they made? And who is this George Pal who makes them?"

The story really begins thirty-three years ago, in the little Hungarian village of Cegled, not far from Budapest, where George Pal was born. Artistically inclined from the first, he loved always to dream, and to draw lines, and curves of proportion, which when joined together became fanciful and graceful figures.

His brilliant mind carried him through his studies rapidly to graduate from the University with honor, and the coveted prize of a degree in Architecture. He did not stop with this achievement, contented to draw just lines and curves, or to design prosaic buildings. He answered the call of romance that beckoned him from brother-artists who had won their places designing for the Motion Picture.

He mustered his lines and curves into designs for scenic backgrounds and sets. His designs were new; they were different. He had the courage to defy, and break away from, the conventional. His inventive mind brought forth new creations.

The warmth of artistry, embellished by his lines and curves, brought him quick recognition as a master of his art. Dame Fame stepped in to pick up the thread of his destiny and called him to Paris, and so, he left Budapest, the cradle of his knowledge, to go out into a competitive world.

In Paris, his genius soared to greater heights and opened doors of new opportunity. He was called to Vienna, and a year later to Prague, and then to Eindhoven, Holland, to assume new responsibilities and activity, that compelled him to maintain a staff of thirty assistants.

But now, he applied his lines and curves to a block of wood, some plastic material, and pieces of fabric, and fashioned the joyful figure of a little doll, then others were fashioned until he had a troop of little actors that ambled through, and around, miniature scenic sets of artistic environment.

The next step in progress was to add sound to his lines and curves and give his little actors dialogue and singing voices tuned to joyous musical melodies.

Through constant application, and research, he had approached closer to his goal, and, "Pal's Puppetoons" became a new cinematic art, a three dimensional sensation. Little people of wood and plastic lived, they walked, they talked and did things in obedience to the mind of genius that guided them. There were no strings, no visible mechanical contrivances of manipulation. He had conceived a method of delightful entertainment that lived pleasantly in memory. A fluid motion of theatrical significance that produced a sense of reality.

But even in pre-war days, Europe's limited theatrical outlets for motion pictures could not provide sufficient financial returns to make possible the production of animated short-subjects for regular theatrical release. But in Europe, unlike America, commercial firms can sponsor films for theatrical release—documentaries, novelty short-subjects, and the like.

Prominent European advertisers were quick to grasp the "Puppetoons" as an attractive medium with which to broadcast a message of their merchandise to a public that paid its way into theatres. Thus, before the war, a new form of entertainment blossomed richly.

But Pal's new idea needed a yet broader field. His ingratiating puppets needed a chance to tell real stories, unhindered by the commercial necessity of "plugging" radios, electric light-globes, or other products. The only place where this could be possible was America—Hollywood, to be exact—where the unusual in filmcraft is sought to supply a world-wide market. So to Hollywood came George Pal and his madcap models. Now, the antics of George Pal's Puppetoons grace the screens of American theatres, holding their rightful place of entertainment with other feature productions.

The first step in making a Pal Puppetoon production is the writing of the story and dialogue, then the composition of the music and the designing of sets; and the sets are just as real as those of a major production, but small, to fit the tiny actors, according to scale.

The next procedure is the making of colored drawings. Pal draws the first, middle, and last phase of each movement of each character; his assistants draw the twenty-five or more drawings of the intermediate phases, then the drawings are photographed and projected to test the movements.

When Pal's heroine casts her glamorous eyes over the hero she must be fashioned into twenty-eight other characters of her mood, each different phase in the progress of her thought-intention must be fashioned, from the starting point of the flirtatious moment of her wide open eyes, to eyes closed.

Before the Puppetoon hero can kiss the heroine, he must be put into shape. He must be carved and fashioned into irresistible male attractiveness by a staff of woodworkers and artists, working together for days to make the gallant little cavalier the charming, captivating, hero demanded by the story. Altogether, some fifty-six heroes and heroines, each slightly different, must be fashioned, and each phase photographed as a single frame of motion picture film.

The use of plastic material permits a certain, limited amount of movement to each little figurine; for some simple movements, arms and legs of one figure may be bent to provide some of the necessary phases of animated movement. But beyond this somewhat restricted motion, new figures must be carved and cast.

The first Puppetoon creations were photographed as other motion picture productions of the era, in the monotone of black-and-white photography. Five years ago, Mr. Pal began to experiment with color, employing the Gasparcolor process of his fellow Hungarian, Dr. Bela Gaspar. Then his creations leaped joyfully into more active life; there was realism. Scenes of daylight were brighter. The little actors strolled along flower-bordered paths of brilliant hue, with foliage of proper shade and balance, or they floated in a canoe down a sparkling stream under the shade of graceful trees. Moonlit nights lent a subtleness to the romance of eloping lovers pursued by an irate parent. Color completed the realism of life.

Today, all of the Pal Puppetoon productions are photographed in Technicolor to produce that perfect realism of life that enhances the mirthful entertainment of Pal's little people.

Some of his Holland-made productions, such as "Ship of the Air," "Phillips Broadcast," "Love on the Range," "Sleeping Beauty," "Phillips Cavalcade," "Southsea Sweethearts," are all in gorgeous color.

Music for the productions made in Europe was supplied by the famous Eng-

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BOTTLENECK OF THE MOVIES

By PEVERELL MARLEY, A.S.C.

WE hear a lot about bottlenecks in industry these days. It's fashionable to talk about them; whether it's making tanks or tableware, the industry that doesn't have a bottleneck just doesn't rate conversationally.

Our own industry has its bottleneck, too. It's a unique one, at that, for appropriately enough it's really made of glass.

The bottleneck of the motion picture industry is the lens of the camera. All the sweat and toil and tears—all the expense and ideas and effort that go to make a modern production have to be squeezed through that little glass bottleneck of the lens before the production reaches saleable form and can be sent out to the theatres to make (we hope!) its profit.

If you draw up one of those organizational charts that production managers are so fond of hanging on the walls of their offices, you'll see this very clearly illustrated. The result will look something like a pyramid balancing on its tip; at the top you'll see the executives, producers and production heads. Below them will come the writers, scenarists and art-directors. Next in the narrowing order will be the director and the actors. And finally, you'll see that the whole involved structure rests on the lens of the camera and the unfailing accuracy and artistry of the man who operates it to put the picture on film. So at this time, ladies and gentlemen of the cinema, I give you the cinematographer!

You can call him what you like—cameraman, cinematographer or director of photography. He occupies a unique position in the industry, for his is the one assignment in the whole chain of production which cannot be by-passed. Pictures can be and at times actually have been made without virtually every one of the many people and services we're normally accustomed to considering as essential—but motion pictures cannot be made without a camera.

The cinematographer, too, is the one man in the industry who has to stand completely alone in his work, with no one to check his decisions or share his responsibility. Once the rushes are on the screen, plenty of people are ready, willing and more or less able to tell him whether they like or dislike the effects he has put on the screen. But in the actual shooting he—and he alone—must make the decisions and then, sink or swim, stand by them.

It's a many-sided job he faces each time he shoots a scene. Each scene must, in the first place, be made an artistically and technically acceptable picture.

It must be lit and photographed to bring out the full "production value" of set and action. The players (with the exception of Boris Karloff) must, generally speaking, always appear at their best. Each scene must carry through in its lighting and photographic treatment the visual mood appropriate to the action of scene and sequence.

And finally, every scene in the entire production must be considered, not only for its own individual photographic and dramatic values, but as a unit which must coordinate visually with the production as a whole. It's a far cry, indeed, from the relatively simple task of the pioneer cameramen of the early "flickers," who had merely to set up his camera at a predetermined distance from his actors on a sunlit stage, turn his cap backward and "grind sixteen!"

If you want a yardstick by which to measure the technical and artistic strides cinematography has made during recent years, take an evening off and drop in to one of the several places in town where the old-time silent pictures of fifteen and twenty years ago are screened; then drop into the handiest theatre and catch even the bottom half of one of 1941's double-bills. Even overlooking the item of sound, you'll see cinematic progress written boldly across the screen in every scene.

Just the other day I had an opportunity to make a comparison of that sort. Out at 20th Century-Fox, in preparation for making a modernized version of that amusing satire of the 20's, "Chicago," we screened a print of the original version of the same story, which I photographed "way back when" for the C. B. DeMille Studio.

Watching that old-timer unreel was

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* This article, written originally for the Annual Number of the "Hollywood Reporter" gives such an interesting comparison of the way cinematography has advanced during recent years that it is reprinted here, through the courtesy of the "Hollywood Reporter."

Picture Partners

By JOHN HUSTON

Noted Screen Writer, Director of "The Maltese Falcon."

Actor Walter Huston congratulates his son, Director John Huston, while Director of Photography Arthur Edeson A.S.C. (seated) and Actor Humphrey Bogart look on

NOT so long ago, my concept of cameramen was that they were nice fellows who concentrated their efforts on turning out pretty compositions and making the leading lady look glamorous. To be perfectly frank, I also had an idea that the present system of crediting them as "Director of Photography" was more or less a polite fiction—dressing things up with a new name, and not much else.

But that was before a change from writing scripts to directing them put me out on the set actually to work with these men of the camera. Practical experience very quickly forced me to revise my ideas, and convinced me that the industry's cinematographers are, as a class, perhaps the most invaluable and yet generally underrated men in Hollywood.

My first big surprise came when I discovered that these men are interested in a lot more than just turning out pretty pictures. They do that as a matter of course; it's part of their job. But much more than that, they're story-tellers par excellence. Instead of using written or spoken words, they tell their stories with the camera. Often—if you'll only take advantage of their knack of visualizing drama—they can, with a simple, pictorial effect, put over dramatic points upon which writers or directors may have toiled and worried vainly.

Speaking for the moment strictly as a writer, I wish there were some way in which the men and women who write our screenplays could have an opportunity of working more closely with the men who photograph them. As writers, most of us naturally think largely, if not exclusively, in terms of dramatic situations and dialog. Yet we're writing for what is fundamentally a pictorial medium. The situations and dialog are necessary, Heaven knows, but if we lose sight of the basic pictorial appeal of our medium, we're likely to use a lot of words to put over a point or situation which could much more easily be gotten across by visual means.

As a writer, I often wondered why so many changes were made in my scripts between the time they left my typewriter and the time they reached the screen. Now I know! Like most of the rest of us, I simply didn't know how to write for the camera: I sometimes wrote things which, when they reached the set, turned out to be impractical cinematically; at other times, and for the same reason, I'd try to put into words things which could more easily be told in pictured action. Even in the course of directing two pictures I've repeatedly seen a story-minded cameraman like Arthur Edeson, A.S.C., with whom I made my first picture "The Maltese Falcon," or Ernest Haller, A.S.C., with whom I am now making "In This Our Life," make suggestions which would by-pass a page or so of dialog at a time, putting over the same idea visually in less footage—and far more effectively.

As a director, I've come to value these suggestions from the cameraman very highly. Of course, I'm still pretty young and new at the business of directing pictures, but I can't conceive of any director who really has the interest of his production at heart ever getting so big and experienced that he could ignore the suggestions that come so naturally from his partner at the camera.

And the man at the camera can be just that — a partner to the director: really a co-director taking full responsibility for the visual side of the production, leaving the director free to concentrate on the actors and their work. That title, "Director of Photography" is a lot more than a mere phrase! It's a very specific definition of the invaluable service the cinematographer can offer to a production—if we'll let him.

What do I mean by the "visual" side of the production—? A lot more, I've found, than merely pictorial composition, high or low-key lighting, and the star's appearance! For example, our scripts today concern themselves largely with dialog, with only a sketchy indication of where a scene is laid, and little, if any indication of camera-angles and business. If you shot a picture solely from the indications given in the script, you'd probably end up with a picture that was 85 or 90% long-shots.

The writers, you see, expect the folks on the set to break a scene up into its component individual angles or (as I think the Russians call them) "cutting pieces." And one of the first things I learned when I started directing was that this isn't nearly as easy as it might sound. You've got to figure out how each shot is to be coordinated with all the other shots that will ultimately make up the sequence, even though the individual, intercut shots may be photographed days apart.

Then there are details to remember—such as, in a series of intercut individual shots of two people talking to each other, keeping the figures on the screen approximately the same size; keeping directions of movement straight, so actors don't get apparently crossed up between one scene and the next; even keeping track of the direction in which a player ought to look at another one offstage so as to keep things flowing naturally on the screen.

My experience has been that a director can do a much better job with cast and story if he'll let his director of photography serve as a virtual co-director, taking almost complete charge of these details. And most directors of photography—at least such men as Edeson and Haller—are glad to do so. They admit it makes them work a good deal harder, but they welcome that because it gives them a chance to contribute more con-

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HOW THE MARINE CORPS MAKES TRAINING FILMS

By SERGEANT ALFRED W. ROHDE, JR.
Official Cinematographer, U S M C

Top: March of Time Producer Louis de Rochemont advises a group of Marine Corps cameramen on editing. Middle: March of Time Cinematographer John Geisle and (below) Sound Engineer Ken Hawk instruct a class of Marine, Naval and R.A.F. cinematographers. Bottom: Service Men study aerial cameras at plant of Fairchild Aviation. Upper three photos by Frank Calberg, March of Time; bottom courtesy Fairchild Aviation Corp.

SERGEANT, take your platoon to the crest of that hill, and at the command 'Camera,' stage a direct charge with fixed bayonets!" The scene is set and the cinematographers, with nervous fingers, stand in readiness. The Director, recently inducted from his Hollywood studios, speaking in firm and determined tones now commands, and no longer suggests as in dealing with a temperamental prima donna in the days before the national emergency. His responsibilities have been redoubled, for an anxious nation is awaiting not mere entertainment, but the added protection which the results of his work will ultimately provide. He has an important job to do, and it must be done quickly. Back-breaking strain has been placed upon the necessity for expansion in our armed forces, and in devising a means to prepare it for all possible eventualities. Time is the important element, and all possible means to avoid the loss of it in training "green" troops constantly hovers over the discussions of those charged with these responsibilities. Lethargic indifference has been erased from the mind of every true-blooded patriot, and the proverbial grindstone is being worn to a frazzle by the backs of their concerted efforts.

Today, many excellent and capable motion picture experts have been called to the colors to alleviate part of the obstacles placed in the building of a first-class defense. The potentialities of a great profession in building this defense have been clearly recognized and placed at our disposal.

Hollywood's great studios, through the Academy Research Council, are turning out many training-films for the armed forces. In addition, the U. S. Marine Corps, the Navy, Army and Air Force each have their own motion picture sections busily engaged producing training films which do not require Hollywood's extensive studio facilities.

The introduction of training films has not only served to vitally define a military objective, but has also provided a technically perfect means for "neutralizing" it. Verbal explanations, with the aid of rough sketches, have become as outmoded as hoopskirts. Military instruction has been transformed by the movie into a system which borders closer on reality. Where an appreciation of movement is essential in understanding an objective, the clear, life-like reproduction found in the use of the celluloid strip has become invaluable.

The problems of producing technically perfect training films are many, and the means provided to develop these important aids are gradually coming into true light. Under existing regulations, the branch for which a production is to be made assigns a specialist in its field to serve as technical director, to check the scenes for accuracy. He will direct a good portion of the scenario before the camera, and also serve as a liaison officer in making arrangements for the troops who serve as actors. This officer compiles technical data for the film treatment, determines the scope of the subject, locale or general setting, and all other details which are subject to final approval by his headquarters. The manuscript is then turned over to a screen-play writer who is qualified by training or experience to prepare the picture adaptation or "shooting scenario."

Consultations between the liaison officer and writer will occur from time to time in deciding methods for handling various points photographically. Consideration of the mental capabilities of the audience before which the training film will be eventually shown is of paramount importance. Intricate explanations and deep tactics very often defeat the purpose of the film where the audience is not yet vested in the elementary phases. In complete contrast, the antithesis also applies. The writer will incorporate in his "picture blueprint" tactical ideas which are presented in a clear, logical sequence, divested of all unimportant details. Emphasis will be placed upon the essential points, and repetition of the action used as a "yardstick" to correlate all the ideas that are presented.

The completed scenario is then forwarded to the branch headquarters for further check in accuracy and dialogue. Approval of the photographic plan must be given prior to attempting any field photography. When this has been received, the first and most important phase of the production is accomplished. The foregoing metamorphosis very often requires over a month, according to the size of the production, and we now enter the second phase—shooting the scenes.

Our Photographic Director takes command. The responsibility of a dozen details rests upon his shoulders and must be carried out with the same vigor and leadership which characterizes the uniform which he wears. His job is in no way separated from that of an officer on the field of battle, for he, too, is thoroughly versed in military tactics and discipline which are applied in coping with problems met in his field of activity.

His ingenuity in determining the composition of each scene fragment, gauging a good workable photographic plan, handling the men under his command, and placing the results of his work into

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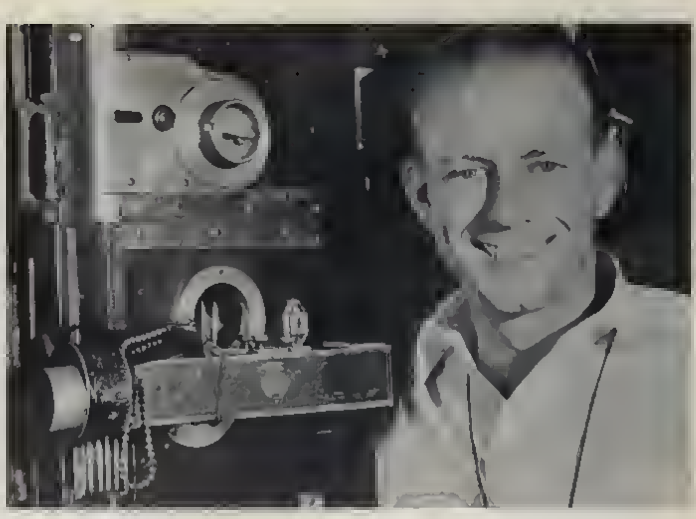

Aces of the Camera
XII:
WILLIAM MELLOR, A.S.C.

By WALTER BLANCHARD

DIRECTOR of Photography Billy Mellor, A.S.C., is typical of Hollywood's younger generation of cinematographers. Young he certainly is; official figures show he's just barely beyond draft age, and in spite of all his efforts, he looks deceptively younger than that. Yet at the same time, he is acknowledged as one of the industry's most skillful and versatile masters of the camera. In the seven years he has been a full-fledged Director of Photography, he has climbed steadily to the forefront, and proven his versatility on everything from westerns and comedies to Bing Crosby and Bob Hope musicals, tense dramas, and Dorothy Lamour Technicoloropuses. He's probably photographed more pictures starring Paramount's pet glamor-girl than any other cinematographer in the industry.

He's a bit touchy, I think, on his youth, and on the fact that virtually the whole of his cinematographic career has been spanned in the relatively few years since the advent of sound. "But," he says, "maybe there's a good side to it, too. I remember a lot of the longer-established fellows had quite a time adjusting themselves to such technical innovations as sound, panchromatic film and the moving camera. Professionally speaking, I pretty well grew up with them; and if I don't have a lot of pioneer experience to draw on, I also didn't have a lot of pioneer traditions to un-learn.

"And I did have about the best cinematographic schooling anyone could ever want. For six or seven years I worked as Operative Cameraman with Victor Milner, A.S.C., who is one of the industry's all-time masters of lighting, and in between I worked with Charles Lang, A.S.C., and other top-flight cinematographers on the Paramount list. Those fellows taught me things I could never have learned in any 'school' of photography.

"That's something I try to impress on hopeful youngsters who write me—as they do most other Directors of Photography—asking how to prepare themselves for a career in cinematography. They all seem to ask if there's any 'school' I could recommend. The truth is, there isn't—unless you count the school of practical experience which taught most of us. Just figure it out for yourself: cinematography is something that just can't be reduced to a set of rules and forms. You do things differently on every scene and set-up. The only way you can learn what to do under any given situation is by experience—and lots of it. The only way to get that experience is in actual practice, on real production.

"To teach that way, a school would have to engage regularly in actual production, which would call for an investment of several hundred thousand dollars in basic equipment, to say nothing of the little matter of production costs which would be equally large. All that would mean the school would have to have a tremendous endowment, or charge an enormous fee. And then—where would the graduates go in an industry already seriously over-manned? No, much as I hate to throw cold water on the aspiring hopeful, there's no school but the long, hard school of experience."

Mellor's attitude toward his work is characteristically modern. "One of the biggest mistakes a cinematographer can make," he'll tell you, "is to try to reduce his work to fixed standards, and do things this way or that just because he happens to be on a certain type of picture. You can't just say, 'This one's a heavy drama—I'll go to a low-key lighting and fairly heavy diffusion,' or 'This is a melodrama, so I'll light for strong contrasts and scary shadows,' or 'This is a comedy, so I'll do it in a high key.' Maybe you can work successfully by formula for a while: but then something a bit out of the ordinary is going to come along — and then where'll you be?

"For instance, right now I'm making a picture like that. It's a melodrama. But it's also a Bob Hope comedy. So what—? If I light it by formula for melodrama, I'm likely to lose some of Bob's funny-business in the shadows. If I light it for comedy, I'm sure to lose the melodramatic suspense that forms a contrasting background for Bob's comedy. Incidentally, I have to keep co-star Madeleine Carroll looking her glamorous best, too.

"So what I'm doing is to blend my technique to get both effects at once. I'm lighting my sets primarily for the melodramatic mood—strong contrasts, heavy shadows, and all that. But I'm seeing to it that the shadows just aren't where Bob Hope is going to be doing his stuff. Not that I'm giving him conventional comedy-lighting — that would stick out like a sore thumb, and make the audience at least subconsciously realize the picture was badly photographed. But I'm making certain that wherever in the scene Bob may be playing, there's always adequate illumination so his 'business' won't be lost—and that there's always a good, legitimate reason for that illumination, too. That's just as important!

"As for Miss Carroll, it's fortunate that this business of glamor-camera-work is done largely in the closer shots. That way, I can subordinate the background, keeping whatever mood I need to match the action, and at the same time light her as is best suited to her,

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A.S.C. on Parade

As we go to press, Harry Jackson, A.S.C., Wilfrid Cline, A.S.C., and J. Stout, Assistant-cameraman son of Archie Stout, A.S.C., are unreported in the Hawaiian battle area. On location there to film scenes of U. S. Fleet and Marine Corps activity for Twentieth Century-Fox's Technicolored "To the Shores of Tripoli," TC-F Camera Chief Dan B. Clark, A.S.C., reports they had been scheduled to sail from Pearl Harber aboard one of the Navy's battle-wagons a day or so before the Japanese bombing began the war. To date, no word has been received from them, and probability is they are still aboard ship, busily chasing Japs instead of movie scenes. Wherever they are, we're hoping for their safety, and that they may come beck with the world's first Technicolored scenes of real war

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James Wong Howe, A.S.C., on his recent between-pictures trip to Washington, D.C., made arrangements with the Chinese Embassy and Consular Authorities for setting up a Chinese-American motion picture clearing-house which would provide the studios with expert technical advice on all films relating to modern Free China, and also coordinate the activities of China's cameramen in making news and documentary films of Free China's gallant fight against the Japs, and provide arrangements for editing and releasing these films in America Fine work, Jimmy!

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Another A.S.C. member who has been tendered an International official post is John Alton, A.S.C., who was recently offered the position of Production Chief of the Argentine Government's newly-formed Educational and Documentary Film Office. Alton, last time we talked to him, said he was waiting further details hefora making his decision.

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The Pacific Coast's wartime "radio blackouts" irk A.S.C.-Prexy Fred Jackman somewhat, account be's gotten into the habit of turning on the Society's big Scott radio whenever be comes into the clubhouse—just to keep things cheerful, he says. Now, when the loudspeakers decline to emit even a peep, poor Fred is in a quandary: he doesn't know whether the broadcasters are observing A.R.P. radio silence, or if one of the receiver's twenty-some tubes has popped!

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Apologies are in order to William Snyder, A.S.C., for omitting his name from its proper place among the credits in our recent review of "Aloma of the South Seas." But here's how it happened: we missed the official preview, and had to catch the film at a regular theatre showing. The only day possible for this was one where we canght one studio preview in the morning, a second in the afternoon, and had to attend a late evening showing of Government documentaries in Long Beach that same night En route to Long Beach, we stole time to see "Aloma"—and missed the credits by one red-lit traffic-signal! Anyway, Bill played a big part in turning out a very lovely job of Technicolor.

The picture above is a world-wide news "scoop," secured at terrific cost. If you know Gregg Toland, A.S.C., you know he hates to waste time in a barber's chair when he's busy on a picture. Consequently, as the shooting-schedule wears on, Gregg comes to look more and more like a candidate for a first-fiddle chair in a major symphony. This routine went on as usual while Gregg was lensing Goldwyn's "Ball of Fire"—until somebody remembered that when Gregg came back from last spring's yachting trip with John Ford, he showed up with an extremely natty hair-cut administered by Ship's Barber Actor Henry Fonda. So one morning on the "Ball of Fire" set, Tolaad was overpowered and held captive while Hank administered a tonsorial trimming as shown, under the watchful supervision of Gary Cooper and the rest of the troupe!

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Speaking of pictures — where's that picture Charles Rosher, A.S.C., so faithfully promised us for this month's back cover?

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From now on, it's Monday nights off for Karl Freund, A.S.C. He's so enthusiastic about that new Norwood "Director" exposure-meter, he's arranged to take time off every Monday P.M. to play host at the Photo Research Corp. Studio to explain and demonstrate the meter to any cinematographere who make arrangements to attend

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Reed N. Haythorne, A.S.C., our Washington Correspondent, reports he's up to his ears in Defense Filming work. Still a civilian, he's Production Supervisor for Training Films in the Navy Department, doing training pix for the entire Navy. Six months ago, he says, they had a single desk for two people —Reed and Lt. Thomas Orehard, from the March of Time staff. Today they have a real force, which is still growing Total score: 209 pictures approved for production, 84 finished, and 86 in various stages of production

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Another speed-demon is Jerry Ash, A.S.C. The other day, shooting Universal's "Temporarily Yours," he and Director Charles Lamont knocked out no less than 14 pages of script in a single day's shooting. And good, too!

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We regret to report the death, on November 10th, of Lt. Carl O. Peterson, U.S.N.R., who will be remembered by many as a Paremount News cinematographer and radio and photographic expert with Admiral Byrd's antarctic expeditions, and co-cinematographer with John L. Hermsan, A.S.C., F.R.P.S., F.R.S.A., in filming Byrd's second expedition to the South Pole.

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Our apologies, also, to Ariel L. Varges, A.S.C., incorrectly referred to as being in Lisbon for Paramount News. Fact is, he has for yeare been with MGM's "New of the Day," and before that with Fox Movietone in charge of the Tokio office. We got only a verbal resume of his letter as the business-office gloated over a stack of new subscriptions he sent in; and as we were just reading a letter from one of the Paremount News boys, we shipped up mentally and credited the wrong newsreel with having this newsreel ace on its payroll. We're sorry all around!

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We're thinking of suing Sid Hickox, A.S.C., for infringement of copyright, or something We ren into him out at Warner's the other day wearing a snazzy suit that seemed to be cut from the same bolt as our pet, new Harris tweed overcoat! On second thought, though, maybe it would be easier if we just asked Sid for his tailor's name, and got a suit to match our coat!

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Add "sartorial wondere of the world": Warren Lynch, A.S.C., heading in to Warner's Stage 5 wearing that incredibly blue hat—!

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Have you noticed it, too? Seems every time you pick up a copy of the "Hollywood Reporter," there's another picture of Stanley Cortez, A.S.C., and his beautiful bride, smiling or dancing (sometimes both!) at Ciro's! And they do say that since Stan's camere has been going to town—bnt sensationally—lensing Orson Welles' "The Magnificent Ambersons," two very major studios are dangling contracts for Stan's signature.

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Incidentally, wonder why some of these writers who break into print with articles about miraculous reducing diets don't check with the A.S.C.'s experts—Jerry Ash, Ben Reynolds, and Karl Frennd? During the last few yeare they must, between them, have taken off enough poundage to outweigh one heavyweight prizefighter!

THROUGH the EDITOR'S FINDER

ONE of the most interesting aspects of editing a magazine like THE AMERICAN CINEMATOGRAPHER is the fact that you have a chance to peruse exchange copies of similar magazines published in every corner of the world. Before the outbreak of the present war, magazines devoted to professional or amateur cinematography used to reach us regularly from some fourteen or fifteen foreign lands. It was a source of great pleasure and pride to observe how the common interest in cinematography—whether as a vocation or an avocation—was binding together peoples of all races and nations into a common fellowship of the camera.

This was especially notable among the cine-amateurs. In addition to fine international friendships and affiliations between individual amateurs and local or national amateur cine clubs in various countries, there had already been established an international organization of amateur cinematographers—the Union International des Cine-Amateurs, better known from its initials as "Unica." Established in Europe, where it held annual conventions and competitions and made its headquarters each year in a different country, it had affiliated with it individuals and clubs not only in Europe, but in South America, Japan, Australia and elsewhere. It seemed to be one of those rare organizations so constituted as to be above the sway of petty nationalism and politics—truly international in scope and character as well as in name.

It is with a sense of deep regret, therefore, that we read in one of the last German cine magazines to reach us before the activities of the Democratic Navies finally cut off all postal communication with the Axis-dominated countries, an item which indicated clearly that "Unica" is no longer a genuinely amateur, international group, but has fallen under the domination of Axis politicians.

Describing "Unica's" Ninth International Contest, held last spring in Budapest, and participated in by a mere handful of filmers from Germany, Italy, Swedan and Hungary, the article lists some of the individuals who were leaders in the organization's contest. We quote: "Taking the lead in the Unica Contest's activities were notable sucb German leaders as Dr. Karl Meltzer, President of Unica and Vice-President of the German National Film Chamber ('Reichsfilmkammer', which controls all professional film activities in Germany. Ed.) and Dr. Hans Plaumann, General Secretary of Unica, while the Italian delegates were Dr. Giovanni Tomasi, one of the highest leaders of the Italian Propaganda and Film Ministries, and Dr. Luigi Tosi, Fuehrer of the Faseist Youth Movement."

To one accustomed to considering that amateur cinematography, like amateur hobbies and sports generally, should be something free, wholly apart from political or governmental domination, such a statement as that seems revolting in the extreme.

It is wholly possible, though not probable, that the august gentlemen named may, like many officials we could name in our Democratic countries, be devotees of home-movie making. But to the Democratic way of thinking, their political and governmental offices should automatically bar them from active participation and holding office in any organization devoted to amateur cinematography. To cite a parallel, let us say that if Will Hays, in this country, or Britain's Minister of Information, should chance to be users of 16mm or 8mm. cameras, our amateur movie clubs or professional organizations like the A.S.C. and Britain's A.C.T. would certainly welcome them as Honorary Members or Patrons; but just as certainly we would bar them from active membership—to say nothing of office-holding—in the organization as long as they retained their official or governmental positions.

In a way, this situation summarizes the why and wherefore of this present war as nothing else could. On the one side are arrayed the powers dedicated to a way of life in which the government—and particularly the party in power—is supreme, fully entitled to dominate the private life of the individual, even to the thoughts he thinks and the way he enjoys his hobby. On the other side are arrayed the powers dedicated to the Democratic way of life, in which the individual's freedom of thought and action, so long as he does not contravene the common good, are paramount to governmental or political interests. Due to the urgency of today's War Effort, some of us may face difficulties in obtaining materials and equipment; others of us encounter scenes which commonsense patriotism tells us should not unauthorizedly be photographed. But no governmental officials dominate the activities of our hobby groups, or dictate to us what ideas our cameras should or should not present. Within the vast bounds of commonsense and good taste, we are free to enjoy our hobby as inclination and conscience guide us. That sort of freedom, we believe, is worth fighting for!

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SCREEN credit, as a whole, undoubtedly means more to those directly in Hollywood's film circle than to people elsewhere. But there are certain credits (other than stellar and featured-player billing) which definitely do count to an increasing proportion of the nation's ticket-buyers. These are the three key "behind-the-screen" aces of production—the Producer, the Director, and the Director of Photography.

The fact is well known that if a picture is credited to a certain producer or director—a David Selznick, a Cecil DeMille, a Rouben Mamoulian or a George Cukor, for example—a sizeable part of the audience will come because that name, to them, guarantees the type of entertainment they like, regardless of cast or story. But it is not so generally realized that the same thing, to an increasing extent, occurs with the names of the industry's Directors of Photography.

Yet that is the fact. Today there are over 2,000,000 amateur photographers in this country alone. They—and with them, another huge group of professional and semi-professional still and movie photographers outside of Hollywood—turn for inspiration to Hollywood's camera-aces. The fact that a picture has been photographed by a Gregg Toland, a George Barnes, a Bill Daniels or an Ernest Palmer is enough to make them want to see that picture, regardless of star or story. They admire that cinematographer's work; maybe they want to emulate it in their own amateur or professional camerawork: at any rate, they are willing to pay their money to see the picture—*provided they know ahead of time that the man they admire photographed it.* Repeatedly, in talks with or letters from amateurs, we have chanced to mention a picture and its photographer, and gotten the reply, "Oh—did he photograph it? If I'd known I'd have gone to see it just to study his work!"

Would it not, therefore, be a good idea to see to it that the name of the Director of Photography appears on the screen in a position where it can be easily seen and remembered? In some studios this is already done: the credit of the Director of Photography appears regularly at the top of the title-card, in easily-read type and position. But in others, it is too often buried at the bottom of the card, all but hidden by the names of writers, musical arrangers and conductors, set-dressers—everyone but the studio gateman—names that do *not* carry weight with any appreciable fan-following.

Secondly, the Cinematographer's name should certainly be included in at least some of the press-releases on a film. It would give the publicists, the exhibitors, and the newspapers something a bit out of the general run of banal blurbs to use in the local exploitation of a picture, and—it would sell additional tickets. There is no doubt but that many additional admissions to "The Little Foxes" were sold simply because it was well publicized that Gregg Toland photographed it; audiences had seen or heard of what he did in filming "Citizen Kane," and were actively interested in seeing what he did with his camera in the subsequent release.

That widespread and growing interest in the men whose cameras put Hollywood's productions on the screen is there, and waiting to help sell tickets. What is the industry going to do about it?

PHOTOGRAPHY OF THE MONTH

BIRTH OF THE BLUES

Paramount Production
Director of Photography: **William C. Mellor, A.S.C.**

Anyone who thinks that because a picture is a more or less routine Bing Crosby musicomedy it should be subjected to routine "comedy" camerawork ought to be forced to see "Birth of the Blues." As entertainment, the picture is well up to the Crosby standard for verbal and visual comedy; but photographically it is anything but routine, for Director of Photography Mellor has presented it with definitely dramatic photography which enhances its value both as a production and as entertainment. "Birth of the Blues" is one of the finest photographic jobs this reviewer has screened in several months.

Mellor has filmed the picture in a rather low visual key, yet without at any time losing the value of any of the comedy action. His lightings and compositions are strikingly effective, and even in some of the more highly-keyed sequences of musical numbers in a brightly-lit cafe, and the like, he maintains an altogether pleasing quality of modelling, diffusion, etc. This pleasing quality is made doubly noticeable by the fact that in one number—"The Waiter, the Porter, and the Upstairs Maid"—there are several scenes which appear to be retakes, filmed in very ordinary style by some other cinematographer. These stand out like the proverbial sore thumb, and detract from an otherwise beautifully-photographed picture.

In one sequence a very clever use is made of Technicolor. This is the one in which Crosby sings "By the Light of the Silvery Moon", accompanying tinted slides in an old-time nickelodeon. The slides are shown in color, with the rest of the scene in crisp black-and-white. The effect is excellent.

Mellor's treatment of the players is, as might be expected, first-class, especially in the instance of the not too easily-photographed Mary Martin. His effect-lightings are notable, especially in the sequence where Bing Crosby and a negro chorus sing "St. Louis Blues" at the bedside of the injured Rochester. All told, "Birth of the Blues" is a photographic treat, as well as good eye-and-ear entertainment.

APPOINTMENT FOR LOVE

Universal Production
Director of Photography: **Joseph Valentine, A.S.C.**

"Appointment for Love" is by long odds the best work we've seen come from the camera of Joseph Valentine, A.S.C., in a long time. Some of his other recent releases we've considered rather "spotty" and far below par for this cinematographer: but in "Appointment for Love" he has turned in one of the most finished camera-jobs of his career. He handles the players with his customary skill (though we'll admit we don't think his work was helped by the coiffure affected by Margaret Sullivan), and his set-lightings are delightful. His lighting adds a definite note of reality and charm to Jack Otterson's attractive sets, and is well worth study by both professionals and amateurs. There are a number of especially pleasing effect-lightings, too.

SWAMP WATER

Twentieth Century-Fox Production
Director of Photography: **Peverell Marley, A.S.C.**

From start to finish, "Swamp Water" is a parade of extremely interesting effect-lightings. Laid in and about Georgia's mysterious Okeefanokee swamplands, it is truly remarkable the way stock-shots made on the actual location have been intercut with production scenes filmed on the swamp sets designed by Richard Day and Joseph C. Wright. Ordinarily, it is very easy to say where the actual location-shots leave off and the studio-made portions begin: but in this instance, due to the skill of the art directors and the remarkably fine coordination between director of photography Marley and the uncredited "second unit" cinematographer who filmed the location scenes in Georgia, it is virtually impossible to tell which is real and which is studio-made.

Marley handles his cast excellently, in a realistic and un-glamorized manner which is perfectly keyed to story-requirements. His effect-lightings which constitute the greater part of the picture are particularly notable. A purist might very well object that in many of these shots too many lighting-angles are used to be completely realistic but Marley has maintained an excellent mood, which fits more perfectly with the dramatic mood of the action, probably, than strictly realistic, single-source lightings could have done.

THEY DIED WITH THEIR BOOTS ON

Warner Bros.-First National Production
Director of Photography: **Bert Glennon, A.S.C.**

This cinemazation of the swashbuckling life of General Custer, of "last stand" fame, is an almost perfect example of what a big-time action picture can be. Bert Glennon's photographic treatment is outstanding—strongly dramatic, yet never intrusive. In many respects it is the best camerawork we've seen in a long time on one of these Errol Flynn action epics.

An extremely striking feature of the picture is the fact that with the exception of perhaps a couple of scenes on a moving train, there is not a single process-shot in the picture. To make this more unusual, the story centers around a swashbuckling cavalryman, and is replete with scenes of "Custer" leading cavalry charges and similar action. Ordinarily, such scenes would be done almost automatically as projected-background process-shots; but in this case, thanks to having a star who is actually an excellent horseman, and a Director and Director of Photography willing to go to additional trouble for the sake of greater realism, these sequences—even to close-ups of the star leading the charge—were done by straightforward methods. The result is excellent. There are some slight technical imperfections, it is true, as might be expected but the net result is probably a good deal more convincing dramatically than would be technically perfect process-shots of so beautiful a specimen as Flynn, who might reasonably be expected to prefer process-shots to actual hard riding which might conceivably be dangerous to his handsome profile! Particularly high credit is due to Glennon's operative crew for the way they have handled these difficult scenes.

Though few, if any, process-shots were used in the production, very extensive use was made of matte-shots. These are excellent, and reflect high credit on the skill of matte-painter Paul Detlefson, and the special-effects staff of Byron Haskin, A.S.C., who transferred them to film.

On the other side of the ledger, it must be pointed out that several of the exterior sequences—especially those laid at Ft. Lincoln—seemed much too contrasty, with strong highlights and unrelieved shadows which did not blend well with Glennon's expert handling of the rest of the production. A more general use of reflectors and "boosters" would certainly have helped, even though the problems created by the many dark-blue, unreflective army uniforms was at best a difficult one. One or two of these scenes, too, had the appearance on the screen of being just on the verge of underexposure. It seems likely that the use of coated lenses and possibly of an incident-light type of meter would have been helpful in making these sequences. However, these slips are minor, and not enough to detract seriously from Glennon's very excellent photographic work on the production as a whole.

TEXAS

Columbia Production
Director of Photography: **George Meehan, A.S.C.**

Director of Photography George Meehan, A.S.C., has done a pleasingly capable job of camerawork on "Texas," and Laboratory-Chief George Seid has presented it in an excellent, sepia-toned print which heightens its effectiveness.

As a matter of fact, "Texas" isn't inherently a particularly pretentious picture, and with commonplace camera-

treatment, it could very easily have degenerated into a commonplace "western." But Meehan's intelligent handling of the camera lifts it above the routine class, and makes it a much more interesting picture than might be expected. His treatment of the players is excellent, especially as regards the character-lightings used on the men.

Meehan has rather more effect-lighted interiors, and exterior night-effects than is common in a picture of this type, and he has handled them very well indeed. The more conventional day-effect exteriors are well done, too, though once or twice he was working against the obvious handicap of a "bald-headed" sky, and undoubtedly wished for the aid of one of the cloud-machines Twentieth Century-Fox has recently found so useful.

THE DEVIL PAYS OFF

Republic Picture.
Director of Photography. **John Alton, A.S.C.**

Photographically speaking, this is by far the best camerawork we've seen emerge from the Republic Studio. John Alton's camerawork is of definitely major-studio calibre, combining fine photographic quality with dramatic feeling and pictorial effectiveness. A melodrama, the photography is naturally keyed in a melodramatically crisp tone of sharply-contrasted black-and-white, but with an excellent gradational scale, to boot. Alton's compositions are very effective, and his lightings do a great deal to add "production value" to sets and action. Here and there, however, are a few long-shots made in the Republic tradition, which do not match at all well with the rest of the picture.

Technically as well as dramatically, the highlight of the picture to this reviewer is the nightmare sequence, in which the villainous ship-owner dreams he is bound tried by a court in which witnesses, prosecutor, judge and jury are composed of duplicates of the ship-captain he believes he has murdered. This is accomplished by some excellent trick photography. The effect is heightened by Alton's angles and lighting, and by the introduction of artificial reverberation in the sound. All told, it is very effective. The change of lighting which begins and ends the sequence is an excellent transition, which certainly should not be overlooked.

KEEP 'EM FLYING

Universal Production.
Director of Photography: **Joseph Valentine, A.S.C.**
Special Photographic Effects: **John P. Fulton, A.S.C.**
Aerial Photography: **Elmer G. Dyer, A.S.C.**

In many ways the most amusing of the Abbott and Costello comedies, "Keep 'Em Flying" suffers from the weakness that has marred all of its predecessors, with the possible exception of the first one, "Buck Privates," which we did not see. In an effort to capitalize on the popularity of these comedians, Universal has rushed their pictures through production, utilizing two and three units in such haste that there does not seem to have been adequate opportunity for the various cinematographers involved to coordinate their work. As a consequence, all of the Abbott and Costello pictures we've seen have tended to be photographically spotty and uncoordinated.

"Keep 'Em Flying" suffers from this, though possibly less than most of its predecessors. The opening sequences are most indifferently photographed. Then, about the time the two comics get into the U.S.O. canteen where Martha Raye (in her dual role) bolds forth, the photography abruptly improves, and becomes something more recognizably like Joe Valentine's output. However from time to time throughout the picture there are scanca — particularly long-shots — which do not match at all well with the other scenes in the sequence with which they are intercut.

Valentine has, in the main, done a creditable job, however. Wherever conditions permit, his lightings have been good, and the compositions, while not as striking as some he has done, are at least adequate. His treatment of the players is very good, especially in the case of newcomer Carol Bruce, who he presents much more effectively than she appeared in her only previous screen appearance. His treatment of Martha Raye is also good.

The real photographic stars of the picture, however, are special-effects cinematographer John Fulton, A.S.C., who did an outstanding job on Martha Raye's split-screen dual characterization, and on the process sequences which put the thrill into the climaxing aerial chase sequence. Offhand, we can't remember when we've seen a better example of split-screen and projection-process dual role work than Fulton turned out in making Martha Raye and her "twin sister" appear so convincingly together. And his process-work in the concluding sequence is just as noteworthy.

The aerial camerawork by Elmer G. Dyer, A.S.C., is well up to the usual Dyer standard. And he and the uncredited second-unit cinematographer, John W. Boyle, A.S.C., deserve a very big share of the credit for the picture's success for the expert way they have handled the thrill and chase sequences. So, too, do Ralph Cedar, who directed these sequences, and Paul Mantz, who did the really spectacular stunt-flying. All told, they've combined to turn out some thrilling laughs in a way that has been too-long absent from modern films.

ONE FOOT IN HEAVEN

Warner Bros.'-First National Production.
Director of Photography: **Charles Rosher, A.S.C.**

Photographically and dramatically, "One Foot in Heaven" is one of those pictures which begins unspectacularly and slowly and quietly builds to a strong climax. After a brief introductory sequence where Frederic March informs the parents of his bride-to-be (Martha Scott) that he has decided to enter the ministry, the scene shifts to the drab little Iowa town in which the young parson has his first charge. At the same time, Rosher shifts the mood of his camerawork to heighten the dramatic impact of this transition. He keys his camerawork in a strongly realistic—almost documentary—mood, accentuating the drabness of the setting. And he handled this mood-establishing sequence, it may be added, under some considerable difficulty, for schedules forced him to shoot this sequence, portraying a drab, muddy little Iowa town of thirty-five years ago (and how muddy those Iowa towns could really get in such weather!) on an actually bright, sunny day. He has done exceptionally well in subduing the natural brightness, and substituting flat, drab effects.

From this start, he carries on through the picture, accentuating the ugliness and drabness of the small-town churches and parsonages in which his characters dwell, until suddenly at the end of the picture you come into a realization of what an outstanding example of exquisitely-keyed mood photography you've seen. In the climaxing sequences, both Rosher's photography and the direction built strongly to genuinely outstanding dramatic effects.

Rosher's handling of the players is, as usual, excellent. It is really remarkable how he and Make-up Artist Perc Westmore have joined their talents to revivify March for the earlier sequences, which present him as a young man. Certainly March is no longer a juvenile —but between skillful make-up and camerawork, years have very convincingly been taken from his appearance. The aging of this player, and of Martha Scott, is also very expertly done.

An interesting side-light on the production is the fact that one entire sequence, in which March inspects a big California Church the pastorate of which he has been offered, was filmed actually within one of Los Angeles' largest Methodist churches. Rosher handles this excellently, making it perhaps even more impressive and realistic because of the technical limitations he faced than if he had been working on a studio set. Yet on the screen there is no tiniest hint of those limitations. The sequence, too, in which March and his son attend a 1917 movie—using actual exerpts from an old Bill Hart "western" of the period—is interesting in more ways than one. Byron Haskin's special-effects staff have done an excellent job in this, especially in the way they've handled scenes shot at the old 16-frame silent-picture speed without unduly speeding up the action when the scenes are shown at today's 24-frame sound speed. The improvement of photography shown in these scenes is also well worth seeing.

TESTING AGFA'S NEW SUPER-SPEED 8MM. FILM

By CLAUDE W. A. CADARETTE

Founder, L. A. 8mm Club

THE announcement made by Agfa Aneco which introduced their new high speed 8mm. Triple-S Pan Reversible Film was enthusiastically received by all users of amateur motion picture equipment. As it is three to four times faster than any previously-available 8mm. emulsions, it contributes greatly to the possibilities of making well-exposed scenes under extremely adverse lighting conditions. While this added speed is not essential for normal sunlight photography, excellent exposures can be made at the late hours of the day where the light intensity is too low for regular panchromatic stock. It is my opinion that this new film was not intended for extensive use in sunlight as the speed of the older types of 8mm. film is adequate for most normal exteriors.

The new innovation gives to the amateur a parallel of film speeds which has previously been accessible only to the professional cameramen in the studios. In the same manner that a cinematographer uses a fast film on stage sets and slower films for outdoor locations, the amateur may now plan his shooting schedule so that the interior shots may be made with Triple-S film and then revert to regular panchromatic stock for his outdoor work.

Triple-S film has a full panchromatic color sensitivity and is, I believe, more sensitive in the red end of the spectrum, which thereby increases its efficiency under photoflood lamps.

It is a known fact that the increase in a film's speed also increases the degree of contrast between highlights and shadows, yet it is evident that Triple-S still retains the proper tonal gradation, which is essential for superior projection results. It has been observed that the film has a wide latitude to correct errors in exposures, yet the fine-grain quality is not badly decreased when an underexposure has been forced in development. In spite of the speed, the image on the screen is needle sharp even when exposed at wide lens apertures.

The advantage of having fast film, however, is not simply that less light may be used when filming. The advantage lies also in the fact that your lights may be used further from the subject, allowing more working room, and also the cameraman may film at smaller apertures of *f*.5.6, *f*:8 or *f*·11, thereby increasing his depth of field.

If the cameraman made a scene at *f*:4.5 on regular panchromatic stock, he can now shoot the same scene at *f*:9, also increasing his depth of field from four feet to a possible eighteen feet. This is extremely valuable for indoor motion picture work where a large number of people are in the scene, or where depth is needed in a medium closeup.

As stated before, all fast emulsions show a tendency to be more contrasty and it is suggested that your subjects be lighted with a flatter lighting than previously. By lighting in this manner, you will retain the gradations of tones which were obtained on slower emulsions.

For portrait lighting, a key-light may be placed to light three-fourths of the face, using a kick light to lift the shadow side. A small spot placed at the side of the camera will blend the line of demarkation between the highlights and shadows and add a strong highlight in the eyes. The back-light can be placed farther back than formerly, yet afford a strong shoulder-light rim to separate the subject from the background. Filming a setup in this manner at *f*·8 or *f*.11 creates a very sharp picture which in some cases may be almost too sharp. However if the light sources are diffused, and picture assumes a softness without losing the illusion of reasonable sharpness.

I have found that closeups which were shot at stops of *f*·11 and *f*·16 did not increase the contrast when the subjects were lit semi-flat, but when the shadow-lifting lamp was turned off, the contrast became extreme.

A very natural lighting effect was captured by throwing all lights on the white ceiling and using only one back-light. This gave the appearance of natural room-lighting and the faces were well modeled. The background did not have shadowed corners and the room seemed to be lighted from a high light source. My subjects also commented that this lighting was easier on their eyes.

Not being certain of the Weston meter rating for Triple-S, I used a speed of 80. This proved to be correct for use with a 400-Watt projector.

The problems of lighting broad expanses of background are now eliminated and although some dark shadows may appear, these can be easily removed by using regular 100- or 150-Watt lamps or even a slide-projector bulb behind furniture. It is amazing how this film penetrates the background even though it is poorly lighted. It is possible, due to the increased contrast, to light your subject semi-flat, but cast interesting shadows on the background for a more pictorial, professional-looking effect.

In long-shots, scenes can be lighted with a minimum amount of front light, and strong lights kicked in from side angles to model the subjects, using one high back-light for a third-dimensional effect.

Interesting low-key effects may be lighted only by baby spotlights working at a considerable distance from the subject. A main light-source of low intensity can be used to record the necessary details of the background.

On scenes of this nature, the light intensity of the subject should be three times greater than the background. If the reading on the subjects calls for an opening of *f*.8, the reading on the background should be approximately *f*·5.6. When filmed at *f*:8, the background will contain sufficient light to expose the details, yet the correct exposure is on the subject.

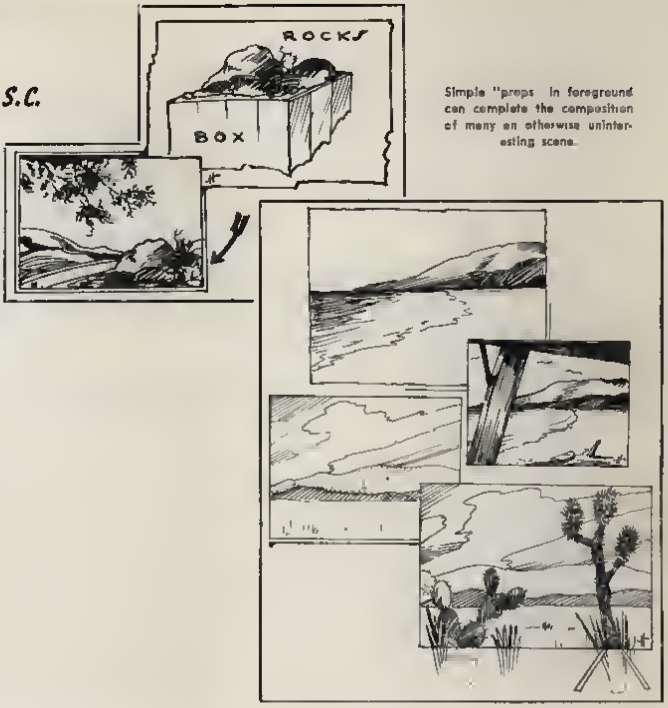
It is to be hoped that the amateur cinematographers will not economize on the amount of light used in motion picture work due to the exceptional speed of Triple-S pan, but will profit by the use of more diversified lighting setups. The problem of obtaining exposure is gone, but interesting and more pleasant effects are within reach, and it seems to me the cameraman's efforts should be exerted along the lines of pictorialism rather than lamp economy. This film will photograph a person's face with the light of a single match; but that is merely an effect shot. Lights in quantity are still needed for proper modeling and highlighting. If economy is used on lights and the film results are not good, it will not be due to a failure in the Triple-S emulsion.

Daylight filming with Triple-S should be confined to the days of poor light, as the extreme speed of this film did not give correct exposure until a 4X red filter was used at an *f*:16 stop in full sun. Obviously, this speed is not necessary for ordinary filming and it is far better to use a slower emulsion such as Hypan for regular sunlight. The color-sensitivity of Triple-S gives better renditions when used with the red-predominate photoflood lamps. In spite of this high red sensitivity, the lips of a person and red-colored objects do not wash out, but seem to retain their proper balance with other colors. As a consequence, it is not necessary to use a green filter to maintain this balance which is usually a fundament when shooting highly red-sensitive emulsions.

To those who like to film indoor hockey games, skating exhibitions, night clubs, stage acts and other amusements, the results will be more pleasing with Triple-S as the normal illumination at such places is usually sufficient for a stop of *f*:2.8 or *f*:3.5 with a film of this speed, for this film automatically converts an *f*:3.5 camera to a speed of *f*·1.5 or better. **END.**

Carry Your Compositions with You

By JEROME H. ASH, A.S.C.



Simple "props" in foreground can complete the composition of many an otherwise uninteresting scene.

DID you come back from your vacation, only to look at your films and feel a bit disappointed at their shortcomings in composition? I thought so! Even in our best vacation paradises, the landscape isn't always laid out to allow for the most effective photographic composition.

Probably the commonest trouble is that, even if you've got a wide-angle lens or a Hyper-Cinor attachment to use, you can't get the sort of pictorial foreground to frame your scenic long-shots the way you would like to see them. Maybe you need just a little something—a bush—a pile of rocks—in the lower foreground. Maybe you need some sort of a framework of branches overhead to frame your composition or subdue a "bald-headed" sky. Maybe you need both.

There's no point in saying, "Well, nature didn't put anything there to complete my composition, so I'll just have to make the best of it." If professional cinematographers—especially those filming Westerns and outdoor pictures generally—took that attitude, well, you'd have a lot lower estimate of our artistic capabilities than we hope you have.

The answer is to carry your compositions with you. Nine times out of ten, all you need to complete your composition is just a little object to make the foreground complete. You can easily carry a few props of this nature around in the tail-compartment or rear deck of your car. They won't take up much room—and when you need them, they're right there, and you can get them out and use them just the way the professionals do.

For example, suppose you're making a roadside landscape-shot like the one shown in the sketch. But—unlike the sketch—the composition nature and the State Highway Department offer you is just a road going over a hill, with nothing at all to make the foreground an interesting part of the composition, and nothing to screen the bare, cloudless sky.

Here's how the professional might tackle the problem. In the foreground, he'd place a box. On the box, he'd make an interesting little pile of rock, stones, and the like, with perhaps a bit of shrubbery peeping up here and there if it can be made to look natural. And he'd line up his camera so that the lens sees only the little foreground "set-piece," and not the box-top that supports it.

To provide the necessary framing at the top of his composition, he would dig into the prop-box and come out with a leafy branch—not necessarily a big one, just a sprig a couple of feet long. And he'd have his assistant hold it in place in front of the lens, so that the branch provided a framing element, just as though it was growing from a handy tree, hut, of course, being careful not to show the assistant's arm, or his shadow, which would give the trick away.

If you're a bachelor, and haven't got an assistant, you can use a spare lamp-standard or tripod, or even knock together a little support out of a few pieces of wood to which you can nail or clamp your branch and still have it held steadily in the right position.

Incidentally, if for any reason you have to make an "insert" of the pages of a book or newspaper, and want to make it more photographically attractive than the usual unadorned, flat-lighted shot of a page of paper, you can use a variation of this same trick. Hold a leafy twig, a spray of flowers, or the like in such a way that they cast a decorative shadow on the page. Notice, by the way, how generally this trick is used in most professional pictures—and remember it is just as effective in home movies. Maybe even more so, since the home movie audience isn't expecting it!

This sort of trickery can be used in many different situations and ways. For instance, if you're in the desert, and need a natural-looking foreground, you can prop up a cactus or similar desert plant in the place where it will make your composition most effective, framing your shot, of course, so that you don't show the props or other supporting means. (If you're an Easterner in some of our western deserts, though, I'd check up a bit before uprooting local flora for this trick; some of 'em, like California's Joshua trees, and some types of cacti elsewhere, are protected by law, with a stiff penalty for people who uproot or injure them!)

To do these tricks with the utmost freedom, you'll really need either a camera which, like some of the magazine types and the Cine-Special, you can focus the full frame through the lens in actual photographing position.

(Continued on Page 596)

Making Wipes in the Printer

By HARRY ZECH, A.S.C.

ONE of the most frequent questions cine-amateurs—and 16mm. commercial filmers, too—ask those of us who specialize in 35mm. special-effects cinematography is how to make "wipes." Not the elementary kind, in which a black area simply slides in from one side or the other and "blacks out" the scene, sliding away again to reveal the second scene; those can be made easily enough by simply sliding a black card or matte in front of the lens, or by after-treatment with Scotch Tape and Fotofade. What these amateurs and 16mm.-pro's. want to know about is how to make true "wipes," in which one scene wipes the other off the screen.

Professionally, of course, we do it by means of an Optical Printer, which is a good deal too intricate for amateur use, and (especially under today's conditions!) rather too expensive for all but the biggest 16mm commercial organizations. But there are two other methods of getting wipes which can very well be used with substandard film.

The DeLuxe way to go about it, of course, is to fit your camera with one of the several wipe gadgets that are commercially available, and shoot your wipes right at the time you shoot your scene. The best of these devices have either a straight blade or a spirally-curved disc-shutter, mechanically geared to the mechanism of the camera so that when you throw them "in gear" the blade moves across in front of your lens; then you rewind the film to the start-point of your wipe, shift the blade to the "wipe-in" position, and make your second scene: the moving blade, mechanically synchronized with the action of the camera, makes the "wipe-in" exposure on the second scene in the area matted off during the "wipe-out" of the first take.

But this method has several drawbacks. In the first place, it calls for the purchase of extra equipment, which isn't always too pleasing to the bankroll. Second, in forces you to shoot the two "wiped" scenes in consecutive order, which isn't always convenient. And—most important—it doesn't help you a bit when you want to "wipe" a pair of scenes on film already processed.

If you make your pictures in 16mm., though, there's another way of making wipes which not only avoids all these difficulties, but gives you a chance to make an almost professionally wide variety of wipes.

That is to do it in the printer. If you're one of the many cine-filmers who use 16mm. negative-positive and enjoy home processing, this method is a natural for you, and will add greatly to your enjoyment of both your laboratory-work and your pictures. In a pinch, it can be worked with reversal stock—even Kodachrome—though this calls for special skill in duping.

Let's see, what do we need beside two strips of developed negative and a printer, in order to print a wipe on a piece of unexposed positive —? Well, we'll need a matte for printing the first scene, so that appropriate areas on each frame will be left unexposed for printing the "wipe-in" of the second scene. And we'll need another matte—precisely the reverse of the first one—to protect the already-printed areas of the first scene when we print the second half of the wipe and the second scene.

This sounds hard, but it isn't. To make the matte, load your camera with positive film and set it up in your titler. Put a WHITE card into the titler, and shoot enough footage of this to equal the un-wiped length of Scene A. At the point where the wipe is to start, take a flat BLACK card and slowly slide it on from one side or the other, while the camera keeps grinding, of course. Then photograph enough footage of this black card to equal the unwiped footage of Scene B.

Next, develop this film in the contrast-iest title-developer you can get. Eastman's "D-9" developer is very good for this. It is made from two Stock Solutions, as follows:

Stock Solution A

Water (about 125°F.)	16 ounces
Sodium Bisulphite	¾ ounce
Hydroquinone	¾ ounce
Potassium Bromide	¾ ounce
Cold Water to make	32 ounces

Stock Solution B

Cold Water	32 ounces
Sodium Hydroxide ("Caustic Soda")	1¾ ounces

In making up Stock Solution B, cold water should always be used, as dissolving the caustic in water generates a lot of heat. Solution A should be stirred thoroughly when mixing with Solution B, to avoid precipitation.

For use, mix equal parts of A and B, and develop two or three minutes at 65°F. After development, wash the film thoroughly between developing and fixing, to avoid stains and chemical fog.

This gives us one of the two mattes we need—one which is opaque for the footage of Scene A, and in which a clear area wipes in and then leaves the matte clear to permit printing Scene B. This is usually called the "negative matte."

To make the other matte we need—called the "positive matte"—simply make a print from the original "negative matte," and develop it in the same high-contrast developer. This gives us a matte which is clear film at the beginning, with the opaque matte sliding in and "blacking out" the frame from the wipe to the end of Scene B's footage.

Now we're ready to print the wipe itself. The first thing to do is to determine a definite starting-point in the various strips of film involved—the unexposed positive upon which the two scenes and the wipe are to be printed, the two negatives, and our two mattes. You'll make things a good deal easier if you splice a length of leader equal to the footage of Scene A ahead of the negative of Scene B. The simplest way of marking this start is to nick out little crescent-shaped punch-marks in the edges of the film.

Now place the second matte—the "positive matte," which started with clear celluloid—into the printer. Over this, place the negative of the first scene. Last of all, put on the unexposed positive film. *The matte must never be between the negative and the unexposed positive, as this would throw the print out of focus.*

Now print your first scene in the usual manner. When the opaque part of the matte (which, you'll remember, was made by sliding a black card into the titler's field) slides into the printing aperture, it will make half your wipe for you, progressively blocking off more and more of Scene 1 from printing, and leaving that area unexposed.

Next, rewind the positive film upon which you're printing, and repeat the operation, using the negative of Scene B, and the "negative matte," which begins as opaque black frames and wipes to clear celluloid. You get the three films—the matte, the negative, and the partly-printed positive—in register by means of the little starting-point notches you've already made. The opaque matte protects the scene already printed from being exposed. As the wipe commences, clear celluloid wipes out the opaque area, and allows Scene B to print through. As the two mattes are exactly complementary, you print in the wiped-in scene on just the unexposed areas left when you printed the wipe-out part through the "positive matte." Then, of course, you continue, printing Scene B in the usual way.

If you've registered your starting-points right, you'll get an excellent wipe from this, with Scene B sliding into the frame and wiping Scene A off the screen. Simple, isn't it?

What's more, you can extend this basic principle to give you an amazing variety of wipes of all types and patterns, just by photographing different patterns of white and black in making your matte. For example, you can make a "barn-door" wipe in which Scene B wipes in from both sides at once, or suddenly starts at the center and spreads

outward to both sides of the frame, by simply using two black cards, sliding them in from both edges at once, for the first type of wipe, or pulling them apart from a meeting-point in the center of the frame, to make the second type of wipe. (In this latter case, this original matte becomes the "positive" matte, for printing Scene A, and the second matte, printed from it, becomes the "negative" matte used for printing Scene B.)

Of course you can have these "barn-door" wipes move in any direction you want—across the film laterally or vertically, or diagonally. By varying the shape of the two cards, you can get further variations If a V-shaped notch is cut in the edge of each card, you can get a diamond-shaped iris-in or iris-out effect. If you cut a series of smaller "V's," the effect will be a "saw-tooth" wipe. You can, by using only one of these saw-edged cards, and moving it saw-wise as well as out, get a "sawing" wipe, by the way.

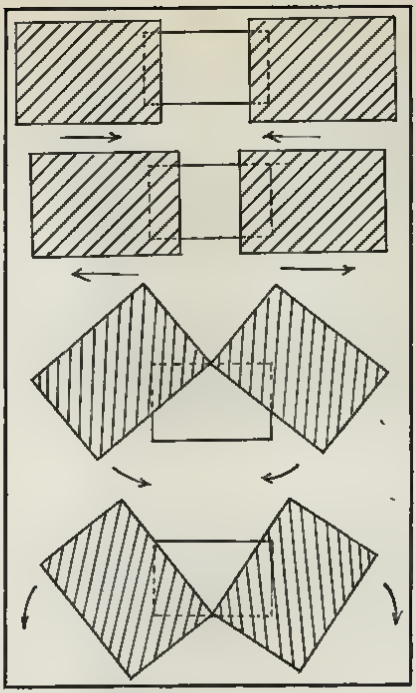
Another interesting two-card wipe is made with the two black cards dividing the frame either vertically or horizontally, and moving the cards in opposite directions If, for example, they move horizontally, the top half of the first scene might start wiping off at, say, the right side of the screen, while the bottom half would start at the left-hand side, and the incoming halves of the second scene will wipe in from these two opposite directions If you use three cards, you could have, say, the left-hand third of the scene wipe upward; as soon as this was finished, the center starts to wipe downward, and finally the right-hand third would wipe upward.

If you want a fan-like wipe, you can do it by using one black card, pivoting it at one corner of the frame (usually the lower right) and swinging it up into the picture. Or you can use two black cards pivoted at the bottom center of the frame and swung in or out together. If they swing in, Scene 2 will wipe in from the edges, like a Japanese fan being closed. If they swing out, Scene 2 will appear in the center of Scene 1's frame and fan outward, like a fan being opened.

You can also pivot the two cards at corners of the frame, and work them in together—pivoting one at each lower corner, or one at a lower corner and the other at the upper corner diagonally opposite, or one at top center and the other at bottom center, working them in opposite directions

Perhaps the most effective of these wipes is one made with four black cards, one pivoted at each corner of the frame, and all four swinging in together. This really calls for several helpers, if the cards are to be managed well, but the result is quite spectacular

There are several other kinds of wipes which you can make by substituting other opaque, black things for the black cards For instance, there's the "melting" wipe which has sometimes been used professionally, in which one scene seems to run and melt into the other.

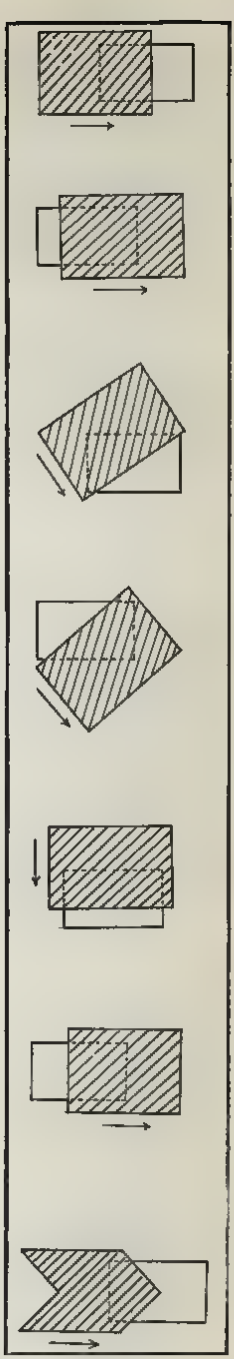


Just place a pane of clear glass in front of your white card, and make a little V-shaped trough along the top of the glass. In this trough put some dark, fairly heavy oil, and tilt the trough so that the oil runs out all the way across the top edge of the glass As the oil runs down the glass, it will run irregularly and, being black, will "black out" the white card in the melting pattern you want. Be sure, of course, that your oil is really opaque, and that your lights won't reflect in either the glass or the oil. Don't try to use light household oil, though; it runs too fast And if you can't get black enough oil, simply mix in a little lampblack

If you can shoot "stop-motion," exposing only a frame or two at a time, there are some other matte tricks you can add to your repertory of wipes. For instance, if you can stand your title-board on end, you can make an interesting "polka-dot" wipe. Take a number of black cardboard discs or poker chips and, when you've exposed the requisite footage of the white card, stop the camera and drop a disc or two onto the white card. Expose a couple of frames, stop the camera, drop in another disc, and so on until the overlapping black discs completely "black out" the frame. On the screen, bits of Scene 2 will appear suddenly in Scene 1 wherever a disc is dropped.

Using stop-motion, you can also animate a lot of other interesting wipes. For example, begin with a number of fine black lines drawn across your white

(Continued on Page 593)



Above, moving cards to produce mattes for various types of wipes. On opposite page, a wipe like this can be made in the printer, using a four-card matte

Amateur lenses make "pan focus" effects like this one from "Citizen Kane" easier for the amateur than for the professional.

"PAN-FOCUS" FOR YOUR HOME MOVIES

By JOHN MESCALL, A.S.C.

EVER since the release of Gregg Toland's "Citizen Kane," all of us — professional and amateur — have heard a lot about the "pan-focus" technique he used in that picture to obtain startlingly increased depth of field. We 35mm. professionals have been rather sharply divided as to whether we liked it or not; but most of the 16mm. and 8mm. cinefilmers I've run into have admired it greatly, and wondered how it could be applied to their own home filming.

As a matter of fact, there's no special mystery about Toland's "pan-focus" technique. I'm sure he would be the first to point out that in it he has simply put some modern materials and some old, established photographic principles to work for him to get the effects his picture needed. With the exception of the fact that Toland was able to employ coated lenses, which are rather expensive luxuries for the non-professional, and arc lighting (necessary largely to penetrate deep, roofed-in sets) *the amateur has available everything Toland used to get his "pan-focus" effects. And they'll work even more effectively in 16mm. or 8mm. than in 35mm.!*

Let's analyze just what Toland did. Knowing that with any lens the depth of field increases as the lens is stopped down, Toland filmed virtually all of "Citizen Kane's" interior scenes with his lens stopped down to *f*:8, and a few scenes at even smaller stops. Since depth of field increases as the shorter-focus, wider-angled lenses are used, he made extensive use of wide-angle lenses. To make the small-aperture exposures practical, he lit his sets much more brilliantly than would ordinarily be necessary, and made use of the fastest 35mm. film available—Eastman's "Super-XX," which has a Weston speed-rating of 64 to Incandescent light.

The funny thing about all of this is the fact that every one of these tricks can be worked with 16mm. or 8mm. film going through your home movie camera —and because of certain basic mechanical and optical advantages inherent to substandard apparatus, they'll work even more effectively!

First, let's take those "short-focus" wide-angle lenses Gregg used. In 35mm practice, a wide-angle lens usually means a 24mm. That's about equivalent to the *normal* lens used in 16mm. work—the 25mm or 1-inch objective. When you talk about a wide-angle lens in 16mm., you mean a 15mm., while 8mm.-users normally employ a 12½mm, and for really wide-angle work they use either a 9mm. or a Hyper-Cinor attachment which reduces the effective focal length of their normal lens to something like 7mm.

In practical terms this means that the home moviemaker has available lenses which will give him almost double the depth possible in 35mm, even with full allowance made for the greater proportional enlargement in projecting substandard film. For example, focused at an object 8 feet from the camera, the professional's 25mm. lens, used at *f*:2.8, will give him an acceptably sharp picture of everything from 5 feet 2 inches from the lens to 18 feet, and at *f*:8, from 3 feet one inch to infinity. But the 16mm filmer's 15mm. wide-angle, focused at the same point and used at *f*:2.5, will keep sharp everything between 4 feet 7 inches and 29 feet 4 inches, while at *f*:8, his range will be from slightly under 3 feet to infinity. I haven't available figures for the 8mm.-filmer's wide-angle lenses, but his ordinary 12½mm. lens, focused at 8 feet and at *f*:2.5, will give him a focal range from 4 feet to infinity, while at *f*:8 the same lens will be almost literally a universal-focus objective, keeping everything from about 1 foot to infinity sharp!

From all of that you can see that even with the inherently greater depth in home movie lenses, stopping down helps increase the depth almost magically. It also tends to snap up the contrast of your picture, giving an added illusion of better definition.

Now, how about putting this reduced-aperture business to work?

In Kodachrome, there is of course only one answer: use more light—and lots of it—until your meter says it's OK to go ahead and shoot at the aperture you want to use. But in black-and-white, whether you shoot 16mm or 8mm, you can do about as Toland did, and make use of super-fast film. In 16mm., for instance, you can use either Eastman's Super-XX Reversal, or Agfa's Triple-S Pan; and even in 8mm, you now have Agfa's Triple-S available. All of these films have a Weston speed of about 64 to incandescent light, the same as Toland's 35mm. Super-XX negative. What's more, Toland's Mitchell, operating at 24-frame sound-picture speed, gave a shutter-exposure of roughly 1/50th second, whereas most home movie cameras, operating at 16-frame silent-picture speed, give you an exposure of 1/30th second, and sometimes even 1/25th.

All of this means that by using these faster home movie films, you can stop down your lens for added depth and still get an adequate exposure using very little, if any more light than you were accustomed to employ with slower emulsions.

For example, suppose you've been accustomed to shooting black-and-white interiors on a film with an artificial-light speed of Weston 24. To get a satisfactory exposure at *f*:2.5 on that film, you'll have to light your scene so as to get a light-value reading of 6.5 on a Weston meter. That same illumination will be enough so that if you use one of the faster 16mm. or 8mm emulsions (Weston 64 speed) you can stop down to *f*:4. With a 15mm. lens, this means increasing your depth-range from the 4 feet 7 inches to 29 feet 4 inches at 8 feet focus to 3 feet 9 inches to infinity! If you light your scene to the level you'd use for Type A Kodachrome, you can stop down with these super-fast black-and-white films to *f*:5.6.

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TOMMY ATKINS WRITES HOME—ON 16MM. FILM!

By WALTER BLANCHARD

SOMEWHERE off the coast of North Africa, the four motors of a giant British seaplane roar into life. A booming crescendo of sound—a flash of foamy white spray—and the big "Empire" flying-boat is climbing into the blue, homeward-bound for Britain, freighted with precious mail from Tommy Atkins—perhaps 80,000 to 100,000 of him—bringing good news and assurence to the folks at home. Onward she wings her way through the perilous Mediterranean or around the edge of Africa and up the Atlantic, dodging *flak* shells and Nazi warplanes, until she lands safely at an English port.

When she's made fast to her landing-float, her passengers embark—a score or more of them. Freight and cargo of all sorts are unloaded But where's the mail? Where are those 100,000 letters for which relatives, sweethearts and friends are waiting so anxiously? Yes, where are they?

I'm afraid you didn't notice it when they came out. It was such a simple thing, you see. Remember when the Second Pilot stepped ashore—? In his hand he carried a small case—you mistook it for an ordinary suitcase—and he handed it without fanfare to an inconspicuous chap in the unobtrusive garb of the British Postal Service.

Oh! You don't see how so many letters could possibly have been squeezed into so small a package, or how one man could have carried a load of letters which, even on the flimsiest of airmail paper must inevitably weigh well over a ton?

The answer is simple enough. You see, those letters weren't on paper at all, but on microfilm strips—16mm. film, to be exact. Technically they're called "Airgraphs," and they're the product of a radically new communications service inaugureted by Eastman's British affiliate, Kodak, Ltd, and the British Postal Service to simplify the problems of getting Tommy Atkins' letters quickly, efficiently and safely back from distant fronts.

Here's the problem that had to be solved Ordinary letters from the Middle East to England now-days have to trevel the whole way by boat; and traveling through war-infested oceans it's a slow and hazardous trip that's measured in months, rather than weeks. Even regular airmail letters have to go part of the way by boat, and require anywhere from a month to five or six weeks for the trip. What's more, letters are bulky things—100,000 of them would weigh just under two tons—and they take up space in either ships or planes that is urgently needed for essential goods. Yet in its way, mail from the boys at the frout is an essential, too.

Luckily, for many years the Kodak organization has had equipment and service for microfilm-copying checks, letters, and similar important documents for banks and business firms. It was known as the "Recordak" service, and used by innumerable business firms all over America and Englaud. The "Airgraph" service is essntially this "Recordak" service put into uniform and assigned to a wartime job.

Here's how it works. Out in the Lybian desert Tommy Atkins decides it's time to write to Dad or Mother or somebody else back home. He writes his letter on a special sheet of paper measing 8½x11 inches (regulation business-letter size). Instead of putting the completed letter into an envelope, he carefully prints the address on a pauel at thé bottom of the sheet, sticks a three-penny stamp to the back of it, and turns it in at a Field Post Office. There, the form is stamped with a reference number, censored like any other soldier's letter, and turned over to the Kodak "Airgraph" staff.

Here, the sheet is photographed on 16mm. film by a regular "Recordak," such as you can probably see in your home town bank, if you live in or near a big city. The complete letter—message, address and all—is reduced to a single "Recordak" freme, measuring ¼-inch by ⅝-inch. A skilled operetor can photogreph as many as forty of these "Airgreph" letter-forms per minute, and between 1700 and 1800 letters can be put on a single 100-foot roll of 16mm. film. The film bearing these letters weighs only 1/100th as much as the 1700 actual letters it reproduces.

This film is processed on the spot by the Kodak staff, and turned over to the Postal Officials for flying to England.

Arrived in "blighty," the Post Office messenger we failed to see at the dock quickly takes his suitcase-full of film to the Kodak works at Harrow. After checking and examining, the first roll is threaded into an enlarger. Next to the "Recordak" camere, this enlarger, specially built for its job, is the heart of the "Airgraph" system.

Any ordinary enlarger would be exasperatingly slow for handling the mass of correspondence a few divisions of homesick Tommies can send home on even a single plane. So this enlarger is built for speedy, and very nearly automatic operation. The 16mm. film negative travels continuously, moving slowly and evenly through one end of the enlarger. At the other end of the machine, a large roll of sensitized photographic paper moves just as evenly, though faster, through the machine in the opposite direction. The two movements—of negative and paper—are so

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Top: an actual "Airgraph" letter below it, the envelope it arrived in, third, the peace-time "Recordak" which today makes "Airgraph" microfilms bottom the special chopping machine which cuts the letters from the roll of enlargements

16 MM Home Movie Previews 8 MM

CELILLO

Documentery; 800 feet 16mm. black-and-white.

Filmed by Phil C. Richardson.

Too often the term "documentery" is loosely applied to a picture merely because that film does not fall into any of the usual classes, such as scenario-film, scenic, "home movie," and the like But "Celillo" is a genuine documentary, and a powerful one Cinefilmer Richardson has taken as his subject the plight of the Indians at Celillo, Oregon, where the White Man, scrupulously living up to the terms of an ancient treaty granting to the Indians the right to fish at Celillo Falls, has at the same time overlooked other clauses of the treaty which guaranteed the Red Men in perpetuity land by the falls on which to live and to cure their fish. His camera graphically shows the result: the Indians, fearing loss of their fishing rights (upon which livlihood depends) if they move away to a reservation, are forced to exist in squalor along a narrow strip of land hemmed in by the constantly encroaching highway, railway, etc

This is a field in which the cine-camera is supreme. Words—even from the pen of a Steinbeck—lack the impact of reality, and can, moreover, all too often be distorted to suit a personal opinion. Still pictures are incomplete—lifeless—and may show only a selected part of the truth. But the motion picture, showing everything, can prove its own honesty and present the case in all its pitiful reality.

That is what Richardson has done. Making his picture to tell the unvarnished truth to the Federal and State authorities who can do something to better the Indians' case, and to bring home to the public the need for action, he has turned out one of the strongest and most moving documentaries—amateur or professional—that we have ever screened. It has none of the affected "social significance" of the usual film of its type It deals strictly in facts, and tells its story all the more forcefully because it avoids theatricality and evidences, necessarily, some technical imperfections.

Technical imperfections it could hardly escape The scenes had to be filmed under almost newsreel conditions —get them on celluloid when you can— and in spite of often unfavorable weather conditions and scanty cooperation from the Indians who from sad experience look askance at any white man with a camera.

In view of this, we feel Richardson has done an outstanding job of film-making. Often he had to shoot under weather conditions which were distinctly unfavorable. In view of this, his uniformity of exposure, while by no means perfect, is certainly commendable. He appears to have used at least two different types of film in the project, as there are noticeable differences in contrast and gradation. This, too, can be overlooked when it is realized he executed the whole project at his own expense, driving over two hundred miles to his location each time he wanted to shoot.

From the viewpoint of filmcraft pure and simple, it might have been better if he could have told things in the form of a story revolving around a typical Indian family, as Fred Ells did with a typical Korean farmer in "Rice." But this was not possible—and the picture may, in the long run, be the gainer because of its strictly factual approach. As it stands, its continuity is excellent, and it gets its message over well.

We might, however, criticize the use of pictorial backgrounds in all of the titles; the background used is excellent for main and key titles, but for the others, it detracts from the readibility of the title-lettering. A simpler background would be preferable We'd also like to see "Celillo" presented with a narrative sound-track, augmenting its pictured message. A few more close shots of the Indians themselves, showing what type of people they are, would certainly help, if such scenes could be obtained. But in general, we can only compliment cinefilmer Richardson for making his picture as he has, and for making so generally excellent a job of it under the adverse conditions which applied.

MERIDIAN HILLS ACTIVITIES

Documentery, 320 feet 16mm. Kodachrome

Filmed by William E. Gabe.

This is a very pleasant little film of typical activities at Indianapolis' famous Meridian Hills Golf Club, highlighted by some very fine Kodachrome camerawork (not all of it accomplished under ideal conditions) and some of the most spectacular Kodachrome titles we've seen in some time. Cinefilmer Gabe's exposure, under an extremely wide variety of both favorable and distinctly unfavorable lighting-conditions, is outstandingly uniform: there is scarcely an imperfectly-exposed frame in the entire footage. His compositions—especially on some of the long-shots—is also spectacularly good. In a word, his technical handling of the film is well above average

The picture divides itself into two clearly-defined parts The first deals with a round of golf played by Craig Wood, Vic Ghezzi, and two local champions. The second part deals with a tea and fashion-show put on by the lady members. Both parts are well handled, and surprisingly well coordinated into a single picture

The golfing scenes are excellent, not only in the brand of golf displayed (we envy some of those long, successful putts') but in their cinematic handling The angles generally are good, with adequate use of moderate slow-motion. Our only suggestion would be that the players should have been more clearly identified individually in the introduction, instead of lumped together on a single title followed by a shot in which all four figured It would have been much better to introduce each player individually, with a separate title, followed by a close shot of that player alone. Thereafter, if possible, a sprinkling of telephoto close shots of the individual players at different points in the round would have been helpful. A little more personalizing in the ladies' sequence would also have been beneficial

LATHE PROJECT

Scenario-Documentery; 180 feet 8mm. Black-and-white.

Filmed by J. W. Sovine.

There is some question as to whether this film should truly be classed as a scenario or a documentery film. The maker places it in the former category; to our mind, it is rather more a documentary, the more so since the scenario thread is tenuously thin, and is really evident in only the opening and closing scenes of the picture

But that as it may, "Lathe Project" is, in the main, a very creditable picture, and presents some of the sharpest 8mm. we've seen. Its main weakness is its lack of frequent explanatory titles. If one is familiar with lathe-work, the pictorial continuity is good enough so the project can be followed well enough· but it should be taken into consideration that the average home-movie audience is not at all likely to be familiar with any such specialized operation—especially a strictly mechanical operation like turning out a screw on a lathe. Therefore, while the picture might be clear enough to the mechanically-minded as it is, the filmer should show consideration for his broader probable audience and see to it that each step is clearly explained in explanatory or descriptive titles.

The technical handling of the subject is excellent. The operations are shown largely in full-screen close-ups, the difficulty of making which it is not realized until at the end one sees what an actually small screw is being made. The composition, focus and lighting of these shots deserve really high credit. The way the actual size of the screw, and the purpose for which it was made, are concealed until the end of the picture is clever, indeed, and adds an ingenious twist to the end.

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AMONG THE MOVIE CLUBS

Long Beach Winners. Left to right: Ted Phillips, Lynn Harshbarger, President Mildred Caldwell, Harold O'Neal, Mrs. Forrest Kellogg, who accepted Trophy for her husband, A. W. Nash, Clarence Aldrich and Julian Hiatt presenting prizes.

Long Beach Has Contest

The November 19th meeting of the Long Beach Cinema Club featured the Club's annual contest. Julian Hiatt, nationally recognized still photographer, Arthur Hoffman and Jack Nicholson judged the pictures, which were divided into three classifications 16mm., 8mm., and sound. First prize in the Sound Division was awarded to retiring President Mildred J. Caldwell, for her 8mm. Kodachrome film, "Song of Old Hawaii," with synchronized sound-on-disc added by the Synchro-Sound method. In the 16mm. division Forrest Kellogg won first prize for "Painted Valleys;" Clarence Aldrich, second prize for "Ranch Romance," and Ted Phillips, third prize for "Happy Landing." In the 8mm. group Harold O'Neal won first prize for "San Francisco;" Lynn Harshbarger, second prize for his version of "Ranch Romance," and A. W. Nash, third prize for "Horseback Trails." A novel feature of the award meeting was the presentation of the business part of the meeting by means of a transcription previously recorded by the officers. Claude L. Evans and Stanley Jeffcott were welcomed as new members.

The November 5th meeting of the Club featured a 1600-foot Kodachrome sound picture provided by General Electric, detailing the difference between the conventional or "amplitude modulation" radio and the new "frequency modulation" system. Lois Elliott, teacher at Will Rogers Junior High School, screened 2,000 feet of Kodachrome taken in South and Central America. Rushes of a Club production, "Oddettes," were shown by Carl Weldin.

RAY FOSHOLDT, Sec'y-Treas.

X-Mas Films at N. Y. 8mm.

The November meeting of the New York 8mm. Club screened four excellent pictures, headed by a very timely Christmas film made by J. F. Hollywood, nationally-famed exponent of 8mm. and a prize-winner in THE AMERICAN CINEMATOGRAPHER'S International Amateur Movie Contests. Member Roesken showed a short Kodachrome scenic filmed at Acadia Park, Maine, and an interesting, though unedited travel-film of the South Sea Islands, filmed by a friend of one of the Club members, was also shown. The concluding feature was the showing of a scenario film, "Auntie in Moccasins," filmed by Member Harley. This was by long odds the outstanding feature of the evening, and proved excellently done in all its details.

Aussies Hold War Benefit Show

The Australian Amateur Cine Society scored a smash hit in its most ambitious undertaking to date, a public showing of outstanding amateur films held on October 11th at Sydney's Conservatorium of Music, with the proceeds used to provide a fund for the purchase of Australian amateur films for screening in Air Raid Shelters in England. Despite a regrettable lack of cooperation on the part of the public press, an audience of over 900 gathered to see the films. The programme included the following films: "Warragamba," a scenic filmed by G. J. Menon and Foster Stubbs of the A.A.C.S., fourth-prize winner in the Society's 1941 Sherlock Gold Cup Competition; "City of Sydney," scenic, filmed by James A. Sherlock, A.A.C.S.; "Charcoal," a documentary, filmed by J. H. Couch, A.A.C.S., second-prize winner in the 1940 Jacobs Cup Competition; "Lamington National Park," a scenic, filmed by C. W. Francis of the Queensland A.C.S. and third-prize winner in the 1941 Sherlock Cup; "Nuts to You," a documentary dealing with the Kingaroy peanut industry, also filmed by Mr. Francis; "New Hampshire on Parade," a scenic filmed by Fred C. Elle, of California, the Society's American liaison officer and second-prize winner in the 1941 Sherlock Cup; "Then He Woke Up," a comedy by Frank Brooks; "Romance of Timber," a documentary filmed by F. Barry, of Newcastle; "Brown Men and Red Sands," a documentary of the Australian aborigines filmed by F. P. Mountford of the Adelaide Filmo Club, first-prize winner in the 1941 Sherlock Gold Cup Competition; and "The Court of Old King Cole," an amateur-made color cartoon, filmed by W. and H. Owen, of the Victorian Amateur Cine Society, winner of first prize in the 1940 Jacoba Cup Competition. A handsome sum was realized at this showing, and a repeat performance is to be given in January in response to public demand.

JAMES A. SHERLOCK,
Publicity Officer, A.A.C.S.

(Editor's Note. Now that this country is at war, American Amateur Movie Clubs will unquestionably be casting about for means in which they can "do their bit." This news from our fellows in Australia comes at an opportune time, giving as it does a useful hint. Many of our own clubs, especially the older and more established ones, have in their libraries and the libraries of their members an invaluable collection of outstanding amateur-made films which the public might well be glad to pay to see. Club shows like this, with a nominal admission charge, should be capable of raising useful sums for the U.S.O. and similar patriotic funds, and we urge club officers among our readers to consider this idea.—THE EDITOR.)

L. A. 8mm. Tests Fast Film

The November meeting of the Los Angeles 8mm. Club featured the making of practical tests of the new super-fast Agfa Triple-S twin-8 Pan film. Messrs. H. De Hoff and Frank Leonard of the Los Angeles Agfa-Ansco branch office explained the new film, and then turned over several rolls of the new product to the Club to be shot at the meeting. Camerawork on these tests was detailed to Past-President Claude Cadarette and Honorary Member Wm. Stull, A.S.C., Editor of THE AMERICAN CINEMATOGRAPHER. Scenes were made at *f* 2.5 and *f*:3.5 using one and two "dinky inkies;" panoramas of the entire audience were made using a single No. 2 Photoflood; other, closer shots were made with normal lighting and stopped-down lenses, and, for contrast, yet others at full aperture and with only normal room lighting. As soon as the tests were exposed, the film was rushed to the Los Angeles Agfa-Ansco laboratory, processed, and returned and projected before the meeting adjourned. The results on the screen showed that the speed of the new film is, if anything, even higher than the manufacturer's claim. even the scenes made under normal room lighting at *f*:3.5 showed a recognizable image, and the long-shots of the audience showed that the single Photoflood carried amazingly clear to the back-wall of the auditorium. Gradation and grain-size were both surprisingly excellent, even though the development had been rushed. The demonstration was acclaimed as one of the finest ever put on for the Club, and the Agfa-Ansco representatives were tendered a vote of thanks for having made it possible.

As soon as the shooting of these tests was completed, shooting of another kind was heard outside, and a masked cow-

(Continued on Page 594)

GENEROUS CONTRIBUTORS

BECAUSE of their exceptional ability — each in its own field — to record completely the beauty of every scene, Eastman negative films have contributed their part to the success of modern screen productions. Eastman Kodak Company, Rochester, N. Y.

J. E. BRULATOUR, INC., *Distributors*
Fort Lee Chicago Hollywood

PLUS-X
for general studio use

SUPER-XX
when little light is available

BACKGROUND-X
for backgrounds and general exterior work

EASTMAN NEGATIVE FILMS

16mm. BUSINESS MOVIES

WATER

General publicity film, Kodachrome, narrative sound.
Presented by: City of Yakima, Washington.
Produced and Photographed by: Joseph Yolo.
Direct 16mm. recording by Telefilm, Inc.

"Water" is by no means an outstanding film in itself, but it is an outstanding example of what well-applied 16mm. business-film production can do. Produced by the Water Department of a small city for the purpose of acquainting its customers with the service they are getting, "Water" was made on a slim budget, with necessarily limited facilities. Yet the combination of Kodachrome camerawork and ingenious technical and dramatic treatment have made it a really excellent job. On the screen, it looks like a good deal more picture than it really is.

The picture tells its story graphically, and in the main, quite well. We personally feel that the inclusion of the short sequence pointing the fact that some of the city's water is utilized in the municipal sewage-disposal plant is unnecessary, and a bit confusing, especially at the point where it is used. However, it is likely that the municipal water-experts felt that was an important part of their message, and insisted it be included. We would also suggest that a bit more stress be placed on the fact that the system shown is a gravity-distribution system, and saves the consumer-taxpayer money by eliminating the need of an expensive pumping-plant. A short animation might help this.

Cinematographer Yolo's ingenuity in putting over "production" effects by camera-trickery makes this film exceptionally interesting. He utilizes split-screen and similar tricks to unusually good advantage, as, for instance, in the scenes showing a kitchen apparently flooded from a leaking faucet, and especially in the climaxing sequence pointing to the importance of water in the activities of the fire department. In this sequence he obtains real drama and "production value" with no resources other than his imagination and genuinely professional skill with his camera.

The print previewed was a "first print," and subject to some obvious corrections, which undoubtedly will be made. The recording, direct 16mm., was excellent.

THE CHAMPIONS WRITE

Documentary, 550 feet Kodachrome, sound.
Presented by Gregg Publishing Co.
Produced and photographed by: Donald Manashaw.
Recording (35mm.) by: Reeves Sound Studio, New York.

A film showing the technique used in writing shorthand by ten or a dozen national and international shorthand champions, court-reporters, etc., wouldn't seem to hold much interest to the general audience. But surprisingly enough, this film does. Producer-cinematographer Manashaw handles his subject-matter in a way that avoids repetition to a remarkable extent, despite the similarity in the subject-matter of the various sequences, and he reinforces his material with ample close-ups of the technique used.

His handling of the inevitably many extreme close-ups of the hands, and sometimes the pencil-points and fingers of the various speed specialists is in itself enough to command the respect of the photographically-minded. The way he coordinates these shots with narration which takes the place of the dictation or evidence which these experts are writing, makes the film of genuine educational worth. His balance of exposure in these shots is generally praiseworthy—no easy task, incidentally—and his lightings of them very effective. His compositions are good. In some of the longer shots, his lighting could stand improvement, though he was very obviously restricted by the limitations of working in dark-panelled courtrooms, business offices, and the like, rather than in a studio. Considering the fact that virtually all of the picture must have been made in the field, under difficult circumstances, he has turned out a praiseworthy production, and one which should certainly repay its sponsor many times over.

MAGIC FIBERS

Advertising-documentary, black-and-white (35mm reduction.)
Presented by: Pacific Pulp and Paper Industry.
Produced and Photographed by: Joseph Yolo.
Recording 35mm. by Cinema Screen Studio (Seattle.)

This picture of the paper-pulp industry of the Pacific northwest is an excellent production, embellished by some spectacularly beautiful photography by producer-cinematographer Yolo. While the print viewed (a 16mm reduction from 35mm.) was of distinctly indifferent quality, it could be seen that the original 35mm. negative was of major-studio quality. Yolo has a strong pictorial-dramatic instinct, and shows it in almost every scene of this picture.

Yolo's handling of the story of paper-pulp from the forest to the completed plup carries the audience through the process entertainingly and at the same time very clearly. His treatment of the logging scenes is particularly pictorial, with excellent dramatic feeling, as well. His handling of the interior scenes within the pulp-mills—virtually every scene of which must have presented innumerable technical difficulties—is outstanding. We've seldom seen factory interiors in an industrial film so well handled.

On the critical side of the ledger, we've only a few comments to offer. The narration, for example, refers to several different methods of pulp manufacture: the picture should, we think, have made this differentiation a little clearer, and perhaps showed—and definitely indicated—several methods, pointing out more clearly where and how they differ. We'd rather have liked, too, to have seen an animation sequence showing what happens in the "digesting" process. The non-informed viewer would also welcome a little more specific information on how the pulp we've seen leaving the factory is transformed into the wide variety of paper, cardboard and cellulose articles we're shown as end-products of the pulp industry. And finally, of course, we'd certainly like to see this picture in color—even though cinematographer Yolo would certainly not thank us for a suggestion which would so increase his already great technical problems!

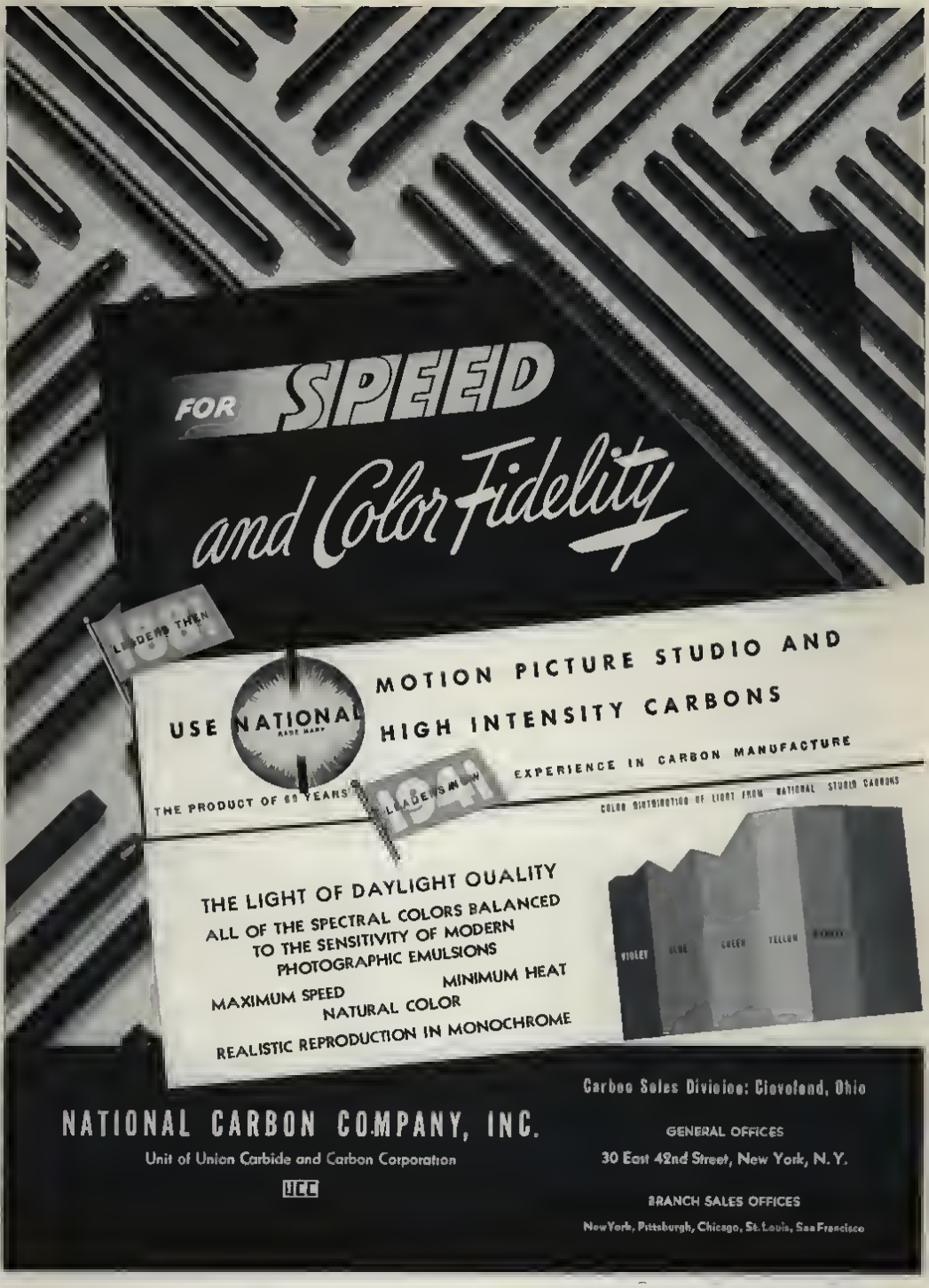
MEN O' DEFENSE

Advertising-documentary; 550 feet black-and-white, sound.
Presented by: The Delehanty Institute.
Produced and Photographed by: Donald Manashaw.
Recording (35mm.) by Reeves Sound Studio (New York.)

Producer-photographer Manashaw obviously faced a tough problem when he made this picture. He had three branches of a large industrial school to exploit, and under today's defense pressure, he undoubtedly had to cateb his scenes on the run, at times and in ways which would not interfere with the school's primary object of instructing machinists, welders and aircraft-workers.

In view of this, he has done a very creditable job. He would probably be the first to admit that if conditions has made it possible, the film would be much more effective if it could, in at least semi-dramatic form, trace the progress of some individual student through each department, from enrollment, through his training, to his ultimate job in industry, with at least some lip-synchronized dialog to aid in key parts of the story. But since this was probably impractical, due to the confusion it would introduce, and to the time-element presumably involved, he has done a very adequate job of factual, if not particularly dramatic presentation.

His technical handling of the scene, many of them shot in dark-walled rooms among dark machinery, sometimes heightened by the incandescent glow of the furnaces, welding arcs, etc., is commendable. This is especially true since he was usually working in rather cramped spaces. The picture is by no means the film a picture of this nature could be if it were possible to expend the necessary time and effort on it, but it should certainly serve its sponsor's purpose well, and sell the school and its possibilities.


FOR SPEED
and Color Fidelity
LEADERS THEN
1904
USE NATIONAL MOTION PICTURE STUDIO AND
HIGH INTENSITY CARBONS
THE PRODUCT OF 60 YEARS' EXPERIENCE IN CARBON MANUFACTURE
LEADERS NOW
1941
COLOR DISTRIBUTION OF LIGHT FROM NATIONAL STUDIO CARBONS
VIOLET
BLUE
GREEN
YELLOW
THE LIGHT OF DAYLIGHT QUALITY
ALL OF THE SPECTRAL COLORS BALANCED
TO THE SENSITIVITY OF MODERN
PHOTOGRAPHIC EMULSIONS
MAXIMUM SPEED
MINIMUM HEAT
NATURAL COLOR
REALISTIC REPRODUCTION IN MONOCHROME
NATIONAL CARBON COMPANY, INC.
Unit of Union Carbide and Carbon Corporation
UCC
Carbon Sales Division: Cleveland, Ohio
GENERAL OFFICES
30 East 42nd Street, New York, N. Y.
BRANCH SALES OFFICES
New York, Pittsburgh, Chicago, St. Louis, San Francisco

HERE'S HOW

Glass vs. Gelatin Filters

What are the respective merits of glass-mounted filters as compared to gelatin filters (unmounted)? Would you advise me to have a filter-slot cut in my camera so I can use gelatin filters?

Patrick Smoielloff.

Probably the chief advantage of using a glass or gless-mounted filter in front of the lens is that it is a bit more convenient, and of course the glass mount of the filter gives the gelatin filtering material some physical protection. On the other hand, the glass filters are more expensive—quite a consideration if you are using filters of types which may not be stable, and have to be replaced frequently—and if you are doing completely professional camerawork, where optical quality and definition must meesure up to the highest standards, it is not particularly desirable to have to shoot through any more pieces of glass than you absolutely have to. Many studio cinematographers prefer to nse gelatin filters for these reasons: by using the gelatin filter you eliminate two glass-air surfaces which cut down definition and absorb light; and since a gelatin filter mounted in a filter-slot directly in front of the film permits using a much smaller filter, and since gelatin filters are much cheaper than glass-mounted ones, the expenss is rather considerably reduced, so that it is quite practical to use a new filter on svery production, or whenever the filter you have been using begins to fade or show signs of banding

For strictly professional use, gelatin filters in a proper mount and a well-made filter-slot would probably be preferable. But for most amateur use, the glass-mounted type are much more convenient, and quite eatisfactory for most purposes.

Operatic Scenes

With a 1-inch f:1.8 lens and Super-XX film do you think I can get eatisfactory pictures of (a) an operatic scene and singers on a stage that is normally lighted, and (b) the audience applauding, etc., taken from backstage. These scenes would later be worked in together with other scenes taken backstage where I eaa control the light.

W. M. Sheridan.

The term "normally lighted" as regards a tbeatrical or operatic stage covers quite a range of lighting, depending on ths theatre, the methods and equipment of the individual opera company, ete., but we're inclined to think you could probably do it. Nearly twenty years ago, with ortho film that hadn't nearly the Mazda-light sensitivity of today's super-panchromatics, we made fair stills of ench action with an *f* 4 5 lens at ½ second, and when the Leica first took hold, we saw qnite a lot of stage stills made on the early super-sensitive film at *f*:2 at 1/10th, so with today's film and equipment you should be able to do it. Since yon won't be in a position to take an accurate mster-reading, though, we'd suggest if at all possible you should make a test at an earlier performance. If this doesn't give you as full exposure as you want, go ahead and shoot, and then before having the film processed, give it mercury-vapor hypersensitization. Place the film, on the camera-spool but not in its can, in a light-tight box, and in the esme box, but below the film and placed so no direct contact will be possible, place a small amount of mercury in a dish Seal the box so it is both light-tight and air-tight, and leave film and mercury there for from eight days to two weeks. Then remove tbe film and have it processed immediately. President John B. Smurr of the San Francisco Cinema Cluh reports using this method successfully sveu for Kodachrome, with which he filmed ths "Ice Follies" very successfully in color.

Prescored Songs

Recently in this column you told us how music is prescored and the actors later "mouth" the wards in making various types of shots. Cannot lang-shots where the singers' actions are not clesrly discernible be taken first es in the question above, and then fitted with music which is later recorded? Can "mouthing" the music be done so successfully in close-nps that the fakiag is not discernible? It seems that in practically all the close-up singing I have seen on the screen the recording has been direct, since there appears to be no trace of faking. W. M. Sheridan.

Ths mathod of post-recording you outline can certainly be done, especially if you have some means of synchronizing your projector and recorder, as by driving both with synchronous motors, or using Synchro-Sound synchronized disc recording equipment. It is sometimes done professionally, we can recall, in fact, at leest one major picture of recent years in which the actor playing a prominent part did not have the typs of speech and accent to suit ths part, so when the picture was edited, another player, with the desired accent "dubbed in" every bit of that player's dialog by this method.

Photographing singing close-ups to a prescored sound-track very definitely can be done so successfully that no "faking" is evident. As a matter of fact, the majority of the scenes of that nature you have seen and accepted as direct recording have been prescored that way, even to ths closa-ups! We can only think of one or two screen singers who do *not* work that way—and those players are not particularly active at present, so we can esy about 9½ out of 10 singing close-ups today are prescored Professionally, tbe task is made much easier by the fact that the original recording, either on film or an acetate disc, is played back at the time the picture is made, with the playhack electrically synchronized with the camera. Thus the actor has only to follow his own voice es it comes through the loudspeaker on the set, and make the necesesry movements and expressions. Usually he, or she, sings audibly at the same time, and this is also picked up by a microphone and recorded separately, so that the film-editor has a very positive guide to getting the picture and the original sound-track synchronized.

Viewing Filters

I am planning to purchase a viewing filter, and would like an article on the why and how of these filters before daing so. I use only pan film both indoors and aut.

C. Polychronis.

The "monotone filter" or viewing glass serves several useful purposes Looking at a scene through one of these filters, you can view it more as the camera and film will see it, rather than es your eye does: the filter reduces things to a monotone, and shows the colors, not as they will appear to tbe eye, but in pretty closely the relative tones and gradations in which the film will reproduce tbem in black-and-white. On an exterior scene, you will find that after a little practice, you can usually superimpose your viewing-glass and any given filter (except the nearly opaque Infra-Red filters like the Wratten 88) and form a very fair estimate of what that filter is going to do to the color rendition of the scene, how it will correct the sky, ete. On interiors, the viewing-glass is also extremely helpful in checking up on light-balancs, showing tbe cinematographer about how his highlights, half-tones and shadows are balanced in relation to each other Of course it tells nothing about exposure, but it does give an excellent guide to light-balancing and color rendition

Several firms make these filters, including Scheibe, Harrison and Harrison, Eastman (Wratten) and others. Some of the film manufacturers have put out, for professional use, viewing filters intended to be specifically a guide to certain of their products. Obviously, the viewing filter and the film used must be closely coordinated, or the conclusions you reach inspecting a scane through tbe viewing gless won't be accurate We would suggest that you make sure in buying a filter of this type that it is really suited to the precise type of film you are using. For example, a viewing glass designed for use with Agfa's Triple-S Pan, which is quite highly red-sensitive, would be very misleading if used for DuPont Type 1 Superior, which has a much lower red sensitivity, and a good desl higher green sensitivity, and a filter intended for use with either of these films would be misleading if you tried to use it with, say, Eastman's Panatomic-X. Viewing filtera have been made for nse with Technicolor, and their is no reason why similar filters couldn't be made for use with the various Kodachroma film-types, as well.

SURPRISE

THAT'S everybody's reaction the first time they make and show their Christmas in color.

Surprise, that it's so downright easy to do.

Surprise, that the tree and ornaments and gift wrappings are so wonderfully and colorfully real.

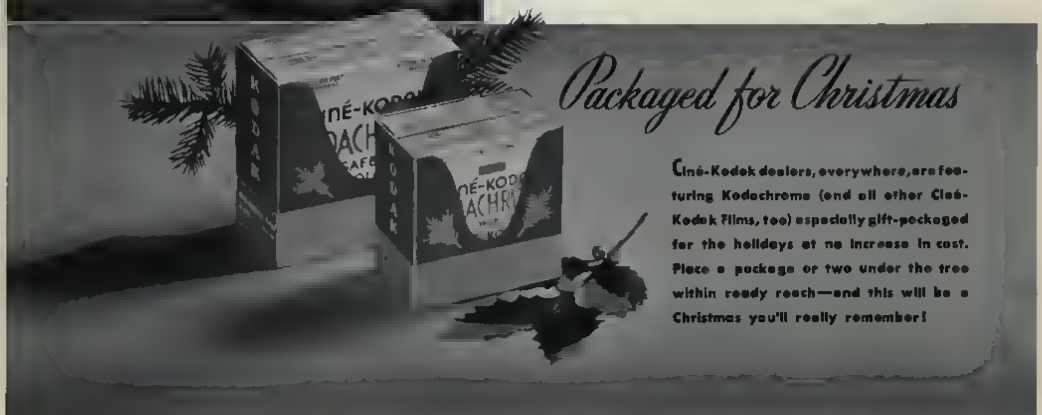
Surprise, that they haven't done it long before.

Even to the fully initiated, Kodachrome is always a revelation. The ease and realism of full-color movies become more and more amazing as you apply them to each new subject. And certainly none is more important, more significant, than Christmas-time.

Kodachrome Film . . . an inexpensive lighting outfit . . . *any* good movie camera—and you can get your Christmas in color. Every roll and every magazine of Kodachrome contains its own exposure guide telling you exactly how to expose it—indoors and out.

For indoor color movies, alone—Type A Kodachrome is the film. For outdoor color movies, alone—regular Kodachrome is the film. For one color film to use both indoors and out—"Type A" again is the choice. No filter indoors . . . a Type A Kodachrome Filter for Daylight outdoors. That's the end of the problem—and the beginning of the merriest, most colorful movie Christmas you've ever screened.

EASTMAN KODAK COMPANY, Rochester, N. Y.


Packaged for Christmas
Ciné-Kodak dealers, everywhere, are featuring Kodachrome (and all other Ciné-Kodak Films, too) especially gift-packaged for the holidays at no increase in cost. Place a package or two under the tree within ready reach—and this will be a Christmas you'll really remember!

...THE SHOWCASE...

Rose Handbook Ready

Important news to the innumerable readers who have inquired about the "American Cinematographer's Handbook and Reference Guide" by Jackson J. Rose, A.S.C., is the information, received as we go to press, that the new and enlarged Fourth Edition will be ready for distribution by or before the first of the year. Price is $3.50, and the author-publisher's address is 1165 N. Berendo, Hollywood, Calif.

Geared Pan-head

Professional cinematographers who are most keenly critical of camera-technique have long recognized that the best assurance of uniformly smooth panning and tilting of the camera is through the use of a gear-driven pan-head. In the substandard field, where smoother panning is so greatly needed, no tripod-head of this type has been available. However, a much-needed step in this direction has this month been taken by the American Bolex Co., with the introduction of their "Gearmaster" geared pan-and-tilt tripod-head, designed to fit any substandard tripod. Operating entirely through precision gears, without the usual pan-handle, the Gearmaster has two controls. One (operated by a large knurled knob) for tilting; the other (operated by a crank) for panning. The usual locking devices are of course also incorporated. The new head is suitable for all 8mm. and most 16mm. amateur cameras, though rather light for the larger, professional-type outfits. From our own inspection of the new device, we are also inclined to consider it geared a bit too high on the panning movement; lower gearing, necessitating slower panning, would improve it greatly. The new device, however, is an important step in the right direction. It is available from dealers or the American Bolex Co., 155 East 55th Street, New York. List price is stated at $16.50, and the device is guaranteed unconditionally for five years.

Goerz Price Boost

Due to rising production costs, the various photographic lenses manufactured by the C. P. Goerz American Optical Co. have been revised slightly upwards. This firm, which for more than 40 years has been American-owned and operated, with no connection with any other, similarly-named concerns, states that while Defense orders take up a considerable part of their production, a stock of lenses is still available for civilian use. Among these are of course the Goerz Kino-Hypar anastigmats (*f*:2.7 and *f*:3) for both 35mm. and 16mm. cine cameras, with focal lengths covering the range from 15mm. to 4 inches.

Plastic Reels

With the Defense Effort demanding a major portion of the nation's steel output, manufacturers of cine-equipment have had to find substitutes for the making of such accessories as projection reels, etc. First of these to reach the market is an ingenious reel made entirely of molded plastics, known as the "American" Plastic Reel. Available in 200-ft. and 300-ft. sizes for 8mm. film and 400-ft. for 16mm. film, the new reel is molded in one piece of transparent plastic and is stated to be light, smooth and true-running. Available at dealers or from the manufacturer, American Molded Products Co., 1751 North Honore St., Chicago.

Demonstrations of Norwood Meter

In order to accommodate professional cinematographers who have not previously had an opportunity to see the new Norwood "Director" Exposure Meter demonstrated, and to make tests for themselves, Photo Research Corporation, manufacturers of the meter, announce that lecture-demonstrations of the meter will be held Monday evenings at the firm's laboratory. All professional cinematographers are invited to attend. However, the firm's officials state, due to the extensive preparations necessary for these demonstrations, involving securing a model, lights, developing-solutions matched to the individual cinematographer's laboratory, etc., these demonstrations will be held only on appointment. No charge or obligation is involved, but cinematographers interested in attending such demonstrations are requested to write or telephone Photo Research Corp. ahead of time, so that arrangements may be made. The firm's address is 12015 San Vincente Blvd., Los Angeles, and the telephone Arizona 93894.

Diffuser-Flectors

With aluminum under strict priority control as a defense essential, J. H. Smith and Sons, of Griffith, Indiana, have found an excellent substitute for the manufacture of photo lamps in white steel coated with a white synthetic porcelain enameled reflecting surface. The new units are marketed as Victor Diffuser-Flectors, and are available for No. 1 and No. 2 Photoflood globes, in reflector-diameters of 9, 10 and 11 inches. The diffused reflecting surface should be especially valuable in producing the softer lighting necessary for the super-fast type of films.

Midget Flashbulbs Cheaper

Growing public demand and a revision in sales methods combine to effect a price reduction of approximately 15% in the prices of three popular G-E midget Flashbulbs, the "mighty midget" No. 5, the "speed midget" SM, and the No. 11. According to General Electric, the reduction cuts the price from 13 cents apiece to 11 cents, and applies to purchase of not less than one carton of six midget bulbs, the price of which is now 66 cents, Federal excise tax included.

Agfa Greeting-Card Kits

Self-made photographic Christmas-cards are fully as appropriate—and popular—with the cinefilming fraternity as with still-camera addicts. Therefore the announcement that the Agfa-Ansco Corp. is again offering special kits for the making of photographic greeting-cards is of particular interest.

The kit, known as Greeting-card Outfit 1A, contains four different film-masks of attractive design and special, new stenciling materials for reproducing the user's signature photographically. The masks are 5"x7" overall and are proportioned to use paper of the standard 4¼"x5½" greeting-card size. Three of the masks contain cut-out openings 2"x3" to take negatives of vertical format, while the fourth takes horizontal negatives. The outfit retails at $1.25. Three specially-designed masks, which sell separately for sixty-five cents each, are available to accommodate various-sized negatives. A special surface of Agfa paper, known as Greeting Card Special, is provided for use in making greeting-cards. This paper is priced the same as Convira double-weight, and is supplied in four grades of contrast in deckled 4¼"x5½" size.

Magni-Focuser

A useful new photographic accessory is the Magni-Focuser Eye Shade. It consists of a special eye-shade, hood-like in shape and including a pair of five-power prismatic magnifying lenses. It is worn over the forehead like an eye-shade, with the lenses just above the normal line of vision. When the magnifying feature is needed, a slight raising of the eyes permits the wearer to look through the lenses. It should be useful in focusing cameras, inspecting negatives during development, retouching still negatives and cutting substandard film. Manufacturer is Edroy Products Co., 480 Lexington Ave., New York.

Case for Pro-Jr. Tripod

A sturdy, fibre carrying-case for the Pro-Jr. tripod has been announced by the manufacturers, Camera Equipment Co., New York.

B & H Cuts Film Rentals

At a time of increasing prices, it is encouraging to note that Bell & Howell have been able to announce sweeping reductions in feature-film rental charges on their Filmosound Library film-rental service. Reductions in rental price of over 200 recreational feature films have been announced, in some instances amounting to as much as 50%. Further

(Continued on Page 595)

You Can't Win A Scenario

By La Nelle Fosholdt
Long Beach Cinema Club

YOU CAN'T WIN!

Scene 1: Medium long-shot. Brown, with shirt collar open, tie loose, coat over arm, sleeves rolled up and sweat on brow, walking down sidewalk towards camera. He wipes perspiration from forehead with handkerchief and continues.

Scene 2: Medium shot. Brown coming up to front door. As he starts to open it, wife comes out with broom in hand, handkerchief around head and pillow and drapes in arms. She looks up frowning, and asks:

Scene 3: Closeup of Wife, saying—

TITLE:
"WHAT ARE YOU DOING HOME AT THIS HOUR?"

Scene 4: Closeup of Brown fanning himself and saying —

TITLE:
"IT WAS SO HOT, THE BOSS GAVE ME THE AFTERNOON OFF!"

Scene 5: Closeup of Wife brightening and saying—

TITLE:
"GOOD! YOU CAN HELP ME CLEAN HOUSE!"

Scene 6: Medium close shot. Brown motioning he is just sick from heat and has to lie down.

Scene 7: Medium shot. Wife leaning on broom and shaking her head as he walks around house.

Scene 8. Medium shot. Brown sits tiredly down in swing in backyard. A small table with a magazine and watering-can is sitting beside swing. Brown picks up magazine and after fanning himself a couple of times, opens it and becomes interested.

Scene 9: Long-shot. From back of swing with Brown in foreground and showing young girl in short gingham dress climbing up ladder and washing window next door.

Scene 10: Medium closeup. Brown turning page and looking over in girl's direction, back to magazine calmly and then quickly back to girl and raising eyebrows and whistling. ("Double-Take.") Raises up on elbow, a slow smile covers his face. He automatically takes a comb out of shirt pocket and starts combing his hair and fastening up shirt.

Scene 11: Medium close shot. Pan from girl's feet on ladder rung to her pretty face intent as she wipes window.

Scene 12: Medium shot. Brown, appearance much better, with magazine in front of him but watching girl from behind it. Wriggles over to edge of swing so he can see her better. Leans too far, loses balance and falls out, striking table with sprinkling can on it and sends it a-flying.

Scene 13. Medium long-shot. Girl turns to see what noise is and loses her balance.

Scene 14: Closeup: Girl yelling "Help!"

TITLE: "HELP!"

Scene 15: Medium shot. Brown getting up in great excitement and is all hands and feet trying to get started.

Scene 16: Medium shot. Girl, head down, hanging by knees from rung of ladder trying to hold dress up with one hand and free herself with other. Brown rushes into scene.

Scene 17: Closeup. Brown's foot as he steps in pail at foot of ladder.

Scene 18: Medium shot. Brown tries to shake off pail, at the same time trying to help girl hold up dress and release her leg from ladder.

Scene 19: Medium long-shot. Brown's back-door as wife comes out with basket of rubbish, hears commotion and looks toward him and girl.

Scene 20: Medium shot. Brown, still trying to help girl, finally grabs her around waist and pulls her away from ladder with head down just as Brown's wife walks in scene looking angry.

Scene 21: Medium close. (From waist of Brown and girl.) Brown holding girl around waist with her head down, sees wife and looking sheepish and embarrassed, he lets loose of girl and girl's legs disappear from scene.

(Continued on Page 595)

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Using Arcs

(Continued from Page 559)

means excessive, especially when considered in relation to the greater freedom this modern use of arc lighting gives to director, cast and cinematographer, and to the definitely better results it enables us to put on the screen. As a matter of strict fact, the whole cost to a production of such phototechnical labor as camera staff, electrical crew, and the like, is of vanishingly small magnitude in comparison to the overall cost of even a modestly budgeted production, so that it may truthfully be said that phototechnical labor is probably the cheapest thing on the set, even if the personnel be expanded to allow for special needs like this.

In general, from my own experience, I would be strongly inclined to urge upon all cinematographers—especially those working on productions where speed is essential, or where it is necessary to work on small, cramped sets or with players with whom full rehearsal is difficult—to investigate the possibilities offered by this use of modern arc lighting, especially the use of arc broadsides as a general lighting tool. Properly used, it can be a great time and trouble-saver, and productive of genuinely improved results.

I do not, of course, recommend the use of arcs to the exclusion of every other light source. We have had too much standardization in this respect already, during the years when, largely because of sound and because the design of arc equipment itself had lagged, we almost completely overlooked the arc. Today, though, we have a variety of lighting equipment, arc and incandescent, and in an enviable range of sizes from the largest spotlight down to the little "dinky" Each of these units has a definite place to fill in modern cinematography. We should let them fulfill their functions, rather than ruling arbitrarily that this type of equipment or that is the best, and therefore the only type to be used.

The problems we face in photographing any modern production are almost infinitely varied· unless the methods and equipment we use to meet those problems are capable of equal variation, we are sure to be at a disadvantage not only in technical efficiency, but in artistic facility as well. We need *all* of our resources, not just part of them, if we are to bring our pictures to the screen with anything approaching the perfection we are all seeking END

Set Miniatures

(Continued from Page 561)

scrapers among the trees It was suspended above the middle-distance of the set, so that from camera-level its terraced facade blended perfectly with the lower walls of the temple as built, full-scale, on the actual set Behind, in forced perspective, the backing suggested further reaches of jungle with palace spires projecting from among the treetops

The miniature, as built by Lawrence Butler, one of the industry's finest miniature builders, was sufficiently large to extend across almost the complete width of the actual set. It permitted an almost infinite variety of camera-angles, giving Director Zoltan Korda and Director of Photography Garmes complete freedom to move the camera, panning, tilting, and dollying as might be necessary to follow the action in any way they wished. Moreover, the particular type of construction used, with the miniature portion placed well into the set itself, permitted something neither the matte-shot nor the conventional front-miniature do: the actors, when working in the foreground of the scene, could move freely above and in front of the miniature portion, just as they could if it were a part of the actual full-scale construction

In arguing thus in favor of the too-often overlooked set-miniature, let me conclude by stating most emphatically that I do not advocate its use to the exclusion of all other methods, such as the matte-painting, and the like. Every artifice in the repertoire of both Cinematographer and Art Director has its legitimate place in motion picture making, for technically as well as artistically, the cinema is a fluid entity, subject to infinite variation No two pictures have or are likely to present identical problems; certainly, neither Cinematographer nor Art Director can attempt to solve all of these infinitely-changing problems by the same formula.

We can never absolutely standardize in our industry. Certain details of materials and equipment, and the basic mechanical routines of many operations can and of course should be reduced to reasonable standards to give us the mechanical efficiency good business practice demands; but the creative application of these materials and methods, the choice of this method or that process for solving a given problem, should certainly never be reduced to rigid rules and customs, even if it were possible to do so. Such short-sighted standardization, I am sure, would not only shackle our efforts in an artistic sense, but would rob them of the technical versatility which is so essential in enabling us to meet most efficiently the constantly-changing demands of modern production END

Puppetoons

(Continued from Page 563)

lish orchestras of Ilylton, Ambrose, and Debroy Somers. In this country, the Puppetoon "Western Daze," features the music of Andre Kostelanetz The second production, "Dipsy Gipsy," also features Kostelanetz music.

Pal's first puppet star was introduced as "Jim Dandy." He was recently christened with a bottle of California champagne. He is a charming little fellow, captivating, so likable Those who have studied his gallant stride claim he is a composite combination of Gable-Taylor-Colman at their best, but Pal says he is a cosmopolite idea of America's Elmer.

In the recent production of the "Gay Knighties," Pal's little actors have been covered with new glory. "Gay Knighties" has more heart and story than any of the former productions There is a lavishness of artistry that impresses one with a new step in progress and carries the happy-go-lucky little plot to an enthusiastic climax of brilliant hilarity when "Jim Dandy" charms a ferocious ogre with his music and wins the fair princess.

Thus, out of lines and curves, with sound and color, genius carved a new way END

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Bottleneck of the Movies

(Continued from Page 564)

really quite an experience. In its day, while not of Academy Award stature (even if there had been an Academy Oscar in those days), it was looked on as a pretty fair little job of camera-work. But today—well, it was most notable for the things it didn't have, if you follow me. Through scene after scene I squirmed in my seat and thought to myself, "This shot might be almost good *if*—" Yes, if this shot had had that bit of equipment or this material or the other trick we take as a matter of course today, it would be pretty near average-good in 1941—and it would have been sensational back in 1925.

But progress behind the cameras doesn't come in world-shaking, revolutionary doses. It comes in little drips and driblets which we pick up and use as run-of-the-mill detail improvements in our work. And when, after a few years of adding these little things here, there and everywhere, we have a chance to sit back and survey the whole picture, we find that the sum total of all the little things that have been improved bit by bit have changed and improved the whole of our work, sometimes almost beyond recognition. If anyone tries to tell you that good photography is good photography regardless, make him sit down and screen an example of the best camerawork of ten, fifteen or twenty years ago and count the improvements he can find in even an ordinary release of today!

For example, when we made "Chicago" fourteen or fifteen years ago, we had only Ortho film, which was virtually color-blind. It was very partial to blue, which it rendered almost as white, and could "see" green and some yellow: but it was wholly blind to oranges and reds, which it reproduced as inky black. Most of the actors in today's films, and a good percentage of today's directors, as well, have probably come into the industry since those old ortho-film days, so maybe I'd better explain some of the great differences that one little change of having a film which couldn't "see" red and orange made.

Sets were pretty generally painted in a monotone gray, so they'd reproduce right in spite of the film. Costumes were similarly restricted. If, for instance, you wanted something like the Swedish flag's combination of a golden cross on a blue field, you either reversed the colors or did it in two shades of gray, for the ortho film would "see" that combination as a dark-gray cross on a very light gray—almost white—field.

And makeup! We're apt to lose sight of the changes that have occurred since skilled makeup artists, rather than individual players, have had charge of this. An actress of today, wearing a properly-applied studio makeup, could almost go to a party and yet not seem unduly "made up." You couldn't do that with even the best of the fantastic "soot-and-whitewash" makeups we had to use back in the early '20's.

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Then, the lighting on the set all came from weirdly blue arcs and, weirdest of all, mercury-vapor tubes. Not at all like today's clear white Technicolor arcs, but an amazing and flickery blue which made people look like prime specimens for the morgue, but which packed a potent photographic wallop for that old blue-sensitive film. Incidentally, the ultra-violet glare from those unshielded arcs (we didn't know then that an ordinary piece of lead-glass would stop it) literally sunburned the actors' eyeballs and created the dread malady, "klieg eye."

The film itself was developed by hand, wound around wooden racks and dunked in a tank of developer until the laboratory folks thought it was cooked. At each spot where the film took a turn around the bars of the rack, there was an embarrassing light flash where one frame or two of the negative got more development than the rest of the strip. Also, the general idea of good laboratory-work in those days was to turn out a film with incredible contrast—clear-celluloid whites, heavy, jetty blacks, and practically no middle-tones in between. No wonder audiences used to complain of eye-strain after sitting through a movie!

Very literally, if you could take a "time machine" from some horror-film set, and, fishing about among the studio world of fifteen years ago, pick up a player or technician from a 1926 set and suddenly plump him down on a 1941 set, he'd see very few things that would indicate to his 1925 mind that he was on a movie set

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Even overlooking the sound equipment, which might not be new to him since Lee DeForest had made some experimental talkies back as early as 1921, (even before Warners' Vitaphone caught the public fancy with "The Jazz Singer"), there would be very few recognizable things Lighting, for instance —he couldn't believe he was in a studio Today we use only a small fraction as many lamps to expose our present super-fast film, and the lamps we use are smaller and different. Most amazing, because today's film can "see" yellow, orange and red light, we use incandescent lamps, rather than arcs. And when we do use arcs—as for effect-lightings and Technicolor, they're different; cool, quiet and steady, giving a daylight-white ray rather than yesterday's scary blue And the arrangement of our lighting is so different a 1925 cameraman probably couldn't understand it at all

Even the camera is different. In most studios, it's gone into hiding in a sound-proof blimp, though inside, except for minor modifications, it's not too unlike the cineboxes of 1926. But in some studios, like the 20th Century-Fox plant, where progressive executives like Darryl Zanuck and camera department head Dan Clark, A.S.C., have encouraged studio engineers to design a present-day camera, our 1925 visitor would find incredible changes. For the camera of today doesn't even look like the boxes of yesterday They move a strip of film past the lens, but they do it noiselessly, without need of a blimp The camera is driven by a motor, not cranked by hand. And when a scene is slated, an assistant simply moves a lever on the camera's matte-box—and the cutter gets an easily-read, full-screen slate.

The film itself is vastly different. Incredibly faster, and sensitive to the whole spectrum of colored light—even, in some cases, to the invisible infra-red Because of that, make-up is more natural; some stars of the feminine persuasion have even been known to wear only a light, street make-up, while many male players work with none at all. Sets and costumes use natural colors; if a wall should be red or blue-gray in reality, that's what it is on the set And, if your star feels most at home in a blue gown, or a red one, that's what the costumer can now give her to play her scenes in.

Even the lenses which record the scene—the original movie bottleneck we started to talk about—have changed. They're better lenses than ever before—faster, to let in more light, "coated" to give a crisper, sharper picture and to allow us to get greater, more natural focal depth and even to shoot directly into strong lights. And where the average scene—especially the closeup—of the early 20s was an extremely soft-focus, woozy-looking thing, today our scenes are crisp and clear-cut as reality itself.

None of these changes came overnight, even though in their cumulative effect they've revolutionized cinematography without our being aware of it. As a matter of fact, the technical advances which enabled Gregg Toland, A.S.C., to do such amazing things with camera, light and lenses in "Citizen Kane" all had their beginnings from two to four or five years ago.

A manufacturer evolved a slight improvement in his product here; a cinematographer suggested to another supplier that he'd like a film or lens that would do this or that differently. And at the monthly technical meetings of the American Society of Cinematographers, Hollywood's directors of photography, perhaps in formal session, perhaps in

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informal chats later around the bar, suggested to each other ways and means in which these many little detail improvements could be incorporated into existing technique, and maybe put to new and unsuspected uses.

The result, if you look at it from the viewpoint of fifteen, or even ten years back, is revolutionary; but from today's viewpoint, it's just natural evolution. And the "revolutionary" technicalities of the sensational films of tomorrow—and of next year and the year after that—are quietly germinating today in the same way, though we can't perceive them.

The only thing that hasn't changed, and probably never will, is the movie's little, glass bottleneck—the lens through which all that makes a production is transmitted to its paying audiences all over the world. But as long as the industry's cinematographers keep their eyes fixed on the best utilization of each unspectacular little detail improvement that comes along, and their sights trained on the ideal of making each scene better today than they could have done it yesterday, I think we can safely conclude that our industry's bottleneck is in good hands. END.

Picture Partners

(Continued from Page 565)

structively to the production—to do their part to make it visually, as well as verbally and dramatically, outstanding.

Here's the way we've worked it in practice so far. Before we start shooting, the cinematographer and I study the script together, in as much detail as possible. We agree on the basic mood and visual treatment generally. Then as shooting progresses, we work together in perfect partnership. At night, the director of photography takes his script home and analyzes the next day's shooting in terms of visual treatment, just as I study things to prepare myself to handle them dramatically. A chap like Haller, for example, will usually break things down into quick sketches to indicate graphically each scene, angle and set-up.

In the morning, before shooting, we'll check these sketches over together, making sure that our concepts are reasonably well in agreement. Then we'll proceed to carry them out on the screen, each dealing with his own part of the job. Of course we sometimes don't quite agree; then, with fellows like Edeson or Haller, we'll talk it over until between us we find just why the scene should or shouldn't be done that way. For example, sometimes I'll listen to the way Ernie wants to deal with a certain scene, and then in my ignorance I'll ask why it can't be done some other way. To that, he may reply with a good, logical reason based on his many years of experience making all kinds of pictures—or we may find we've accidentally hit on something a bit new and useful. In any event, the picture is a lot better for that sort of cooperation.

Frankly, I think the general run of our pictures—"A" productions, anyway—would be immensely benefited if they could have the advantage of the cinematographer's picture-trained brain participating in the final stages of scripting, as well as on the set. Whether you agree with Orson Welles' concept or not, most of us are agreed that "Citizen Kane" was in every way a remarkable achievement in cine-storytelling: and I don't think it is in any way detracting from Welles' acknowledged brilliance as a producer-director to point out that he made full use of the capabilities of Gregg Toland, A.S.C., by having his director of photography work closely with him during the last eight or ten weeks of preparing the production, and then gave him a very free hand in guiding the visual side of the picture during the shooting. Without that, it is very safe to say that "Citizen Kane" would not have been so arrestingly cinematic.

That sort of pre-production cooperation would pay dollars-and-cents dividends, too. I'm sure it would cut down measurably on "protection-shots," set-construction, and the like. I've already learned that if you only give him a chance to make the suggestion soon enough, a skilled cinematographer can show you how to suggest things with the camera, rather than having to build them in expensively literal sets. For example, one of the biggest-appearing scenes in "Kane" was, if you'll analyze it, suggested by simply using a huge fireplace, a massive staircase—and an imaginative camera.

Often, too, in writing on preparing a script, we'll note down this scene or that sequence as "process," and mark it for the attention of the special-effects staff. Actually, it might be more efficient to film that action by straightforward methods—and other scenes we've completely overlooked could be done much more economically as process-shots! The cinematographer's unique grasp of both technique and production methods, if called into consultation earlier, could undoubtedly save us a good many more or less costly mistakes along these lines.

The ideal system, I'd say, would be to have the director, the director of pho-

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tography and the scenarist work closely together as the script is put into final shape for shooting, sketching out each angle and set-up as they went along, until they finally reached the shooting stage with a script combining words and sketches to make a genuine blueprint of the completed production. In that way, I am sure, we could save on set-construction, save on shooting-time, save on normally over-shot footage and "protection-shots," and turn out a production that was dramatically and visually more coherent, doing it much more easily and surely because of taking the real picture-mind of the cinematographer into full partnership. **END.**

Training Films

(Continued from Page 566)

the hands of his superiors, will be noted on his periodical "efficiency report." His value to the service will be determined by what he produces, and will be a governing factor in deciding his eligibility for promotion.

At this point, the activity which would ordinarily be expected as in a Hollywood studio will not be found during the production of a training film. In preparation for the camera's churn, no painters, carpenters erecting scaffolds, or designed sets will appear, as most of the work is performed in the field with a natural background.

In making further comparison to a Hollywood production, the same amount of patience which is necessary for a good scene in a first-rate motion picture must be employed in a training film production. Scenes which sound reasonable on paper very often lay a golden egg on the set.

The cinematographer may find it impossible to acquire the proper angle which the director is trying to convey, or difficulty may be encountered because of inadequate equipment. The time allotted to the director in having troops available at certain times may interfere with their special duties and regular training periods. The director, not unlike that of one in Hollywood, also has his hands full in keeping his schedule up to date. A day's shooting, under constant strain, still only produces about three minutes of edited action in the finished picture.

Lurking in the shadows, and compiling sufficient data to play his part successfully in the final stages of our drama is the one person in whom the ultimate success or failure of the training film is entrusted—the cinematographer. He stands alone in his decisions when translating his ideas of coordinating the camera treatment, composition, lighting, and in framing the mood desired.

The rapidity necessitated in the various movements of producing a training film is not abated until the resultant efforts are finally on the screen, approved, and released. The pressure and determination for quick action is passed on to the cinematographer when his zone of action is reached. He, too, must labor under the same relentless, nerve-wracking elements which characterized the work of his predecessors in the production. His training and skill will be placed upon the auction block when recording the efforts of the entire staff, and is very often subjected to either severe or commendatory criticism by the reviewers.

When the final "production" scenes have been shot, the noncoms are given their ordure and the entire complement, like a magic military pattern, react in unison. The troops and equipment are marched to their designated organizations and the production moves "indoors." The golden link in our chain has been set in its mold and the anxiety as to whether it will eventually tarnish, or shine forth in true brilliance will be determined in the cutting-room. Swift continuity is accomplished during this period by deleting unimportant material in bringing the scene fragments into a single mosaic.

The monotonous repetition of successive sounds can be heard from the constant drone of the "Moviola" where an expert eye checks every minute detail for precision and technical accuracy. When this task has been accomplished, and corrections made, the production is shown "in the rough" to the directors for further revision.

In this preview, scenes will be miss-

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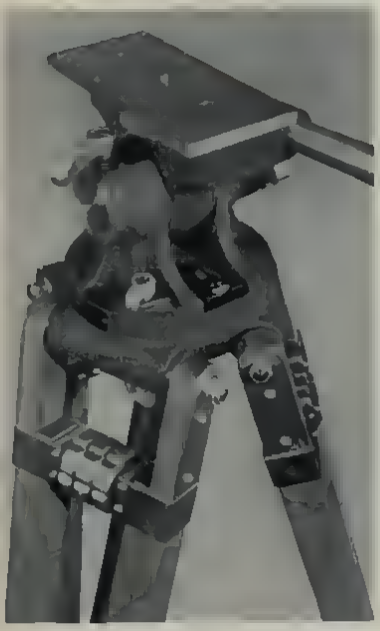

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ing, together with smooth fade-outs and dialogue which may require "sprucing up." The film editor then makes all necessary arrangements in reconstructing the details of a polished story for instructional use. This process is long and arduous, and oftentimes requires several days for "dubbing in" the remaining dialogue or narration. Repetition of highly technical detail action by the animation artists is taken care of at the same time, and when every item has been thoroughly checked by the entire staff, the film is ready for final assembly. Another very potent weapon has been added to the arsenal of democracy. END.

Wipes

(Continued from Page 575)

field in any direction; have these—by animation—become wider and wider until finally the whole field is "blacked out." You can do the same thing in a checkerboard pattern, a spiral, or almost any other pattern. And of course, once you've caught on to the tricks of animation, you can make things more spectacular by having the whole pattern—as, for instance several expanding, radial segments—revolve or move about the frame in coordination with the action, while at the same time they expand to produce the wipe.

In fact, once you've gotten the hang of making these mattes by direct photography or by animation, you'll find that the limits of these printed-in wipes are set largely by the limits of your own imagination. It's helpful to remember that, as a general thing, the black areas in your original shot will represent the second or incoming scene, and the white areas, the first, or outgoing one. And once you've gotten onto this technique, you'll find that the 35mm. professional with his optical printer is surprisingly little ahead of what you can do in 16mm with negative-positive and a simple contact printer! END

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Pan-Focus

(Continued from Page 576)

These super-fast films have another advantage. The major part of their increased speed is not so much in the highlight region as it is in what the film manufacturers call "shadow-speed." This means that if you take your indoor meter-reading on your subject's face, as most of us do, these faster films will reach into the shadows much better than you were accustomed to having the older, slower films do. You'll find yourself getting better detail in the shadows than you have been accustomed to seeing. And naturally, if you're after heavily-shadowed effect-lightings, brother, you'll just have to see to it that your shadows are really shadows!

Well, there it is: with today's super-speed 16mm. and 8mm. reversal films together with the mechanical and optical advantages substandard equipment gives you, you can not only reproduce Gregg Toland's "pan-focus" effects in your home movies, but—technically, at least—you can actually improve on them. Whether or not you put an artistically better job on your home screen is up to you, for the factor that made "Citizen Kane" and the various other professional films in which this "pan-focus" technique was used such outstanding examples of cinematography wasn't by any means the simple fact that they provided a sharply-defined image of everything within the camera's view. Composition and light-balancing were, as always, even more important factors. Mastery of them is what makes the aces among the 35mm professionals outstanding—and it's what singles out the aces among the 16mm. and 8mm. amateurs, as well, regardless of what methods, equipment or film they may use! END.

Tommy Atkins

(Continued from Page 577)

synchronized that the paper travels at precisely the same rate as the enlarged image of the negative, so that, in effect, image and paper are motionless with respect to each other. Since the original "Recordak" negative has been made under precisely controlled conditions of uniform focus, lighting and exposure, there is no need for any sort of compensation when making the

enlargement. Focus and magnification are fixed, and the exposure automatically standardized.

From the enlarger, the roll of sensitized paper goes directly into an automatic developing-machine, exactly like any conventional motion picture film developing machine except that it is made to take a web of film some 4 inches wide, rather than the more familiar 35mm or 16mm celluloid strip. The paper travels through the usual tanks of developer, hypo and washwater, and finally passes over a heated drying-drum and is spooled.

The letters contained on the original 100-foot roll of 16mm. film have now been printed onto a roll of paper some 4 inches wide and several hundred feet long. This roll is rewound and inspected, and any photographic faults noted are, if possible, corrected.

Then the roll is put into a continuous, automatic chopper which, actuated by a photoelectric cell, cuts the individual letters from the roll into sheets 4 inches wide by about 5 inches long. These final processing operations turn out the letters at the rate of some 1200 letters per hour.

Three or four times a day another Post Office messenger calls at the Kodak plant and takes away many thousands of these prints. At the Post Office they are sorted and folded so as to show only the name and address which the sender wrote in the bottom panel, and put into special envelopes with the word "Airgraph" boldly printed at the top, and with the address panel showing through a cut-out area at the bottom. Then, as the last step in their long voyage from Africa to England, they go into the mail like any other letter, and are delivered to homes scattered all over the British Isles.

By the time this appears in print, it is probable that a two-way "Airgraph" service will be in operation, not only conveying to England letters from the troops on the North African front, but replies from families and friends back home in England. And in spite of its superior speed and safety, this service is far cheaper than ordinary air-mail, which costs 30 cents per half-ounce, and, as we've said, takes from a month to five or six weeks in transit. An "Airgraph" makes the trip in ten days or less—and costs but 6 cents. Small wonder, then, that Tommy Atkins is turning to 16mm. to take his letters home! END.

Movie Clubs

(Continued from Page 580)

boy and cowgirl entered the room, with guns blazing. Upon being overpowered and unmasked, they stood revealed as Past-President Bill Wade and his wife, who everyone had thought moved permanently to Kansas City. Given an unexpected vacation, they had driven to Los Angeles to attend this Past Presidents' Night at the 8mm. Club. They received a hearty and vociferous welcome.

Four new members were introduced: Ellen and Mervyn Gill; George Blaisdell, former Editor of THE AMERICAN CINEMATORGRAPHER, and Marshall Crawshaw. The official films of the Club's Annual Picnic were shown, as were private films of the same subject made by Everetta Brandes and John N. Elliott. Announcement was made of the Annual Contest and Banquet, to be held December 13th.

BETTY BARNEY, Secretary.

Nat'l. Parks for Philly

Scheduled highlight of the November meeting of the Philadelphia Cinema Club was the screening by John V. Hansen, of Washington, D. C., of Series 1 of his Kodachrome picture "The Glory of Our National Parks." The series include Monument Valley; the North Rim of the Grand Canyon and the Kaibab National Forest of Arizona; Bryce and Zion National Parks in Utah; and pictures of Navajo Indian life. Besides Mr. Hanson's film, member Virgil Woodcock was scheduled to show his "Summer Symphony," and Mike Angelo, his "Skipper Hankins." Officers and members of the Allentown and Norristown Cinema Clubs were also invited to attend as the Philadelphia Club's guests.

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Washington S.A.C. Busy

The November meetings of the Washington Society of Amateur Cinematographers both featured outstanding programmes. The November 17th meeting featured a 1,000-foot sound-on-film Kodachrome production, "Emilie," screened and explained by its producer, Mr Merriken. Milton J. Pike exhibited one of his latest color films, and talked on "Making Movies Move," and Wilbur Comings discussed "Gadgets and Their Use." Three 8mm. films, the work of Messrs. Wilcox, Dreier and Dr. Brodie, were presented for criticism and instruction

The Society's Annual Banquet, at the Fairfax Hotel, Nov. 22, featured T. A. Vlier's 16mm. Kodachrome picture, "Western Dream," the Society's outstanding travelogue of the year, and "Yellowstone Park," filmed by the President of the Washington 8mm. Club, and considered as that Club's outstanding film of the year. "Chromatic Rhapsody," one of the A.C.L.'s "ten best" was also shown.

JOHN T. CHEDESTER, President.

Mt. Vernon Sees Red Cross Film

Feature of the November meeting of the Mt Vernon (N. Y.) Movie Makers was the showing of a film made by President Walter Bergmann and Secretary James J. Berman for the Mt Vernon Red Cross. The film was warmly applauded, and was made the subject of a general discussion and analysis.

In addition, Vice-President William Knight read the interesting lecture on "What We Can Learn From the Professional," illustrated with slides and furnished by the Eastman Kodak Company It was decided that the Club's first Annual Contest would be held at the April meeting. The Scenario Committee, headed by George Kirstein, reported it was busy selecting a script for the forthcoming Club picture It was also announced that there are still a few vacancies in the Club for active cinemakers

JAMES J. BERMAN, Secretary

Minneapolis Sees Canadian Film

Scheduled features of the November meeting of the Minneapolis Cine Club was a showing of Harold Bronson's excellent Canadian film, supplemented by a talk by Bronson on his filming methods. Caroll Michener was also slated for a similar screening and exposition of methods E. E. Ibberson was to report on new ideas and novelties from current photographic magazines, and Dr. Cyrus Hansen to present a technical forum on the making of surgical movies

ROME A. RIEBETH

War Work for Clubs

As we go to press, Amateur Clubs all over the country, headed by the progressive Long Beach Cinema Club, are telephoning, telegraphing and writing THE AMERICAN CINEMATOGRAPHER asking "What can patriotic cine-amateurs do to help win the war?" We don't know—yet. But we'll find out, and report fully, if possible next month.

Scenario

(Continued from Page 587)

Scene 22: Closenp. Wife saying meaningly—

TITLE:

"SO YOU'RE TOO SICK TO HELP ME CLEAN HOUSE?"

FADE OUT.

Scene 23: FADE IN. Closeup of window from outside looking in. Window covered with Bon Ami. Clear area in glass appears as Brown wipes off center of window. Brown's face appears with a black eye. He looks directly in camera and says—

TITLE:

"IT'S NO USE FELLOWS, YOU CAN'T WIN"

THE END

Showcase

(Continued from Page 586)

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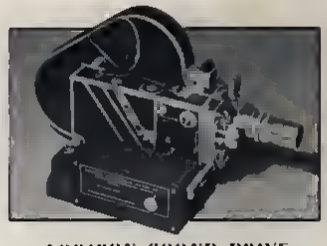

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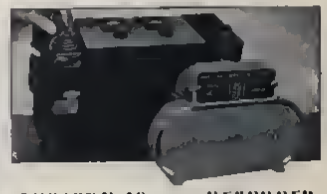

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Folders, Album for Minicolor Prints

Kodachrome enthusiasts who have had 2x (2¼x3¼) Kodak Minicolor prints made from their 35mm. Kodachrome transparencies now have available a place to put their color-prints. Pocket folders and cases, made of maroon leather-like material, are available in sizes to hold one, two and three prints, and a spiral-bound album holding up to 24 prints in transparent, cellulose envelope-pages is also to be had.

Slide Cleaner

The troublesome task of cleaning 2x2 cover-glasses before mounting in them minicam transparencies for use as slides is simplified by the recent introduction of Leitz Slide Cleaner, marketed by E. Leitz, Inc., New York. The product is stated to effectively remove dirt, grease, smudges and fingerprints from the glass, and to be equally useful in cleaning the outer surfaces of glass-mounted slides which have become soiled from use. The product is put up in 2-ounce bottles, and supplied with a special fountain applicator, fitted with a plastic reservoir and a sponge-rubber swab with which the solution is rubbed on the glass.

Billy Mellor

(Continued from Page 567)

merely matching the key to suit the rest of the sequence.

"The really important thing is to match the mood and style of the photography so closely to the story and action that the audience isn't conscious of whether the photography is either good or bad. Of course, if photography in a picture is downright bad, or crude, they'll notice it. But it isn't always realized that they'll notice it, too, if the photography is too perfect—too pictorial. One is really just as bad as the other, only on opposite ends of the scale. The minute the audience begins to notice consciously what you've done with your camera, they'll begin to let their attention slip from the story. And that's bad, believe me—very bad, for it means the cinematographer is working against the rest of the troupe, rather than with them, to give the audience entertainment in the most complete form." END

Carry Your Compositions

(Continued from Page 573)

Or else, equip yourself with an alignment gadget that permits sliding your finder into the exact spot occupied by the lens in shooting. This way you can line the shot up to perfection, and be very sure you won't be accidentally including in the frame anything that will give the trick away.

If you're handy with tools, or have a friend who is, you can carry this idea a bit farther, and even build little foreground pieces—like the two planks in the sketch which suggest a picturesque dock where there really is none. And if you want to, you can go even a bit beyond this, and make use of set-miniatures for this purpose. For instance, in the sketch of the beach scene, there's really nothing in the shot to give any indication whether the suggested pier in the foreground is built in full size, or if it is a miniature. If you can align your shot accurately, a miniature will do very well indeed, especially since the lenses used on 16mm. and 8mm. cameras have, when stopped down as you do on exteriors, tremendous depth of field, so that a comparatively small construction placed relatively close to the lens will be in adequately good focus even when the camera is focused near enough infinity so the distance is also sharp. In the desert-scene in the sketch, you could even get the same general effect shown if you used one of the small, potted cacti obtainable anywhere in that country. This would have an added advantage—when the shot is filmed, you can take your "foreground" home and put it on the mantell. END.

Emergency Splices

When you're projecting a film and a splice breaks, you need an emergency splice and you need it right away. Just slit the two ends of the film and slide the slitted ends together and you can carry on safely. Or you can butt the two ends of the film together, and slap a strip of Scotch tape across them, with the tape running the long way of the film.

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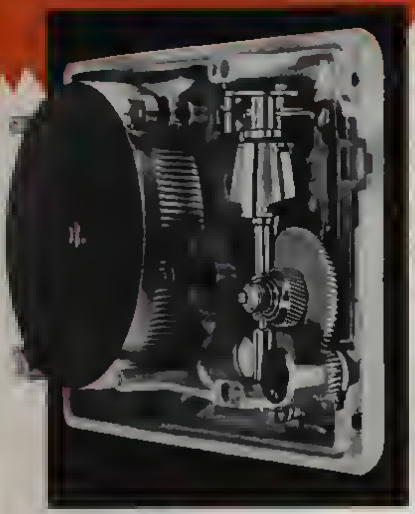

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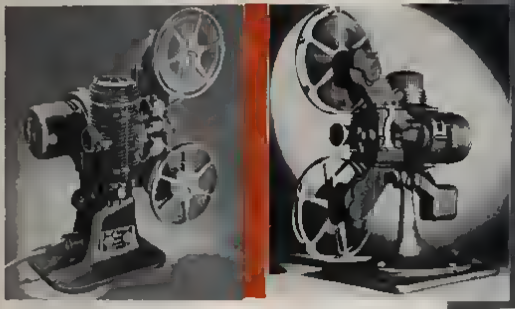

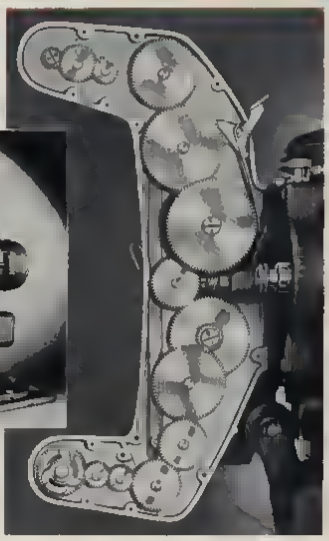

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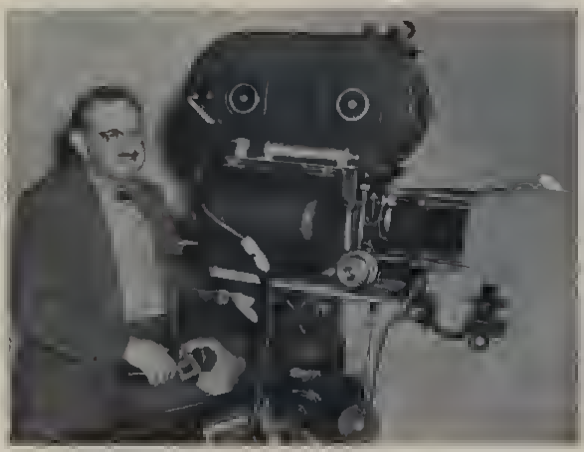

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